

Active International Agreements by Signature Date (as of June 30, 2023)

| No. | Responsible NASA Installation      | Partner Name   | Title/Purpose   | Type of Agreement                    | Activity Description  | Execution (Signature Date) | Expiration Date |
|-----|------------------------------------|--|---|--------------------------------------|---|----------------------------|-----------------|
| 1   | Kennedy Space Center (KSC)         | Government of Spain  | Agreement on Space Cooperation Between the United States of America and the Kingdom of Spain                            | Umbrella/Framework Agreement (UM/FW) | Authorization for, in case of an emergency, manned space vehicles of the United States to overfly, enter, and depart Spanish air space and use the runways, taxiways, and other installations at the Moron de la Frontera, Rota, and Zaragoza bases; also, agreement to negotiate agreements in promising areas for joint efforts to strengthen cooperation in space science and technology. Dip notes entering the agreement into force were exchange on Sept 3, 1991, and May 12, 1994. The science and technology portion of this agreement was implemented by agreement SP0027 of 12/02/1991 with INTA and agreement SP0028 of 07/03/1992 with CDTI.  | 7/11/1991                  | 12/31/2100      |
| 2   | All NASA Centers                   | National Institute for Aerospace Technology (INTA)                   | Agreement on Cooperative Activities Between NASA and the National Institute For Aerospace Technology of Spain           | Umbrella/Framework Agreement (UM/FW) | Broad agreement between NASA and the National Institute for Aerospace Technology of Spain (INTA) to consider cooperation in a variety of fields in Space Science, Earth Science, Aeronautics Research, and Exploration Systems. The agreement also establishes a group to discuss potential cooperative projects in the identified areas. The agreement is automatically extended each year. The expiration date of 2100 was picked because it was far in the future.   | 12/2/1991                  | 12/31/2100      |
| 3   | All NASA Centers                   | Center for Technological Industrial Development (CDTI)               | Agreement on Cooperative Activities Between NASA and the Center for Technological Industrial Development of Spain       | Umbrella/Framework Agreement (UM/FW) | Umbrella/Framework Agreement (UM/FW): NASA Center: Mentioned different NASA Installations. Broad agreement between NASA and the Center for Technological Industrial Development of Spain (CDTI) that anticipates the negotiation of future agreements between NASA and Spanish agencies in a variety of fields in Space Operations, Space Science, Earth Science, Aeronautics Research, and Exploration Systems. The agreement specifically mentions space vehicle landing facilities and science and technology development programs. It also calls to the establishment of a group to discuss potential cooperative projects. The agreement is automatically extended each year. The expiration date of 2100 was picked because it was far in the future. The CDTI is known presently (August 2008) as the Centre for the | 7/3/1992                   | 12/31/2100      |
| 4   | Goddard Space Flight Center (GSFC) | United Kingdom Space Agency (UKSA)                                   | Terra/Earth Observing System (EOS AM-1): Multi-Angle Imaging Spectro-Radiometer (MISR)                                  | Project-Specific Agreement (PSA)     | Participation by Dr. Jan-Peter Muller on the Multi-Angle Imaging Spectro-Radiometer (MISR) Instrument Team, which is to design, develop, and verify the MISR instrument and MISR data exploitation. Missing UK letter.  | 9/11/1992                  | 9/30/2025       |
| 5   | Goddard Space Flight Center (GSFC) | Russian Federal Space Agency (Roskosmos)                             | WIND Mission/Cooperation in the Konus-WIND Experiment   | Project-Specific Agreement (PSA)     | Flight on the U.S. WIND mission of the Russian Konus gamma-ray burst detector to enhance the scientific return to the international science community in the area of gamma-ray astronomy.   | 10/28/1994                 | 12/31/2033      |
| 6   | Goddard Space Flight Center (GSFC) | Canadian Space Agency (CSA)  | Flight of the Measurements of Pollution in the Troposphere (MOPITT) Instrument on Earth Observing System (EOS AM)/Terra | Project-Specific Agreement (PSA)     | This MOU establishes the scientific and technical cooperation for the flight of the MOPITT instrument on the NASA EOS-AM1 polar orbiting platform of MOPITT to further cooperation in global change research by enabling the multidisciplinary study and long-term systematic monitoring of Earth, including research involving data from all Earth observing platforms in the International Earth Observing System.  | 11/15/1994                 | 12/31/2025      |
| 7   | Headquarters (HQ)                  | Russian Federal Space Agency (Roskosmos)                             | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 12/16/1994                 | 12/31/2100      |
| 8   | Headquarters (HQ)                  | Ministry of Education and the Department of Environmental Protection | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 1/30/1995                  | 12/31/2100      |
| 9   | Headquarters (HQ)                  | Government of the Kingdom of the Netherlands                         | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 2/28/1995                  | 12/31/2100      |

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|----|-------------------|--|---|----------------------------------|--|-----------|------------|
| 10 | Headquarters (HQ) | Government of the Republic of Senegal        | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 3/17/1995 | 12/31/2100 |
| 11 | Headquarters (HQ) | Ministry of Education                        | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 3/20/1995 | 12/31/2100 |
| 12 | Headquarters (HQ) | National Board of Education                  | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 3/23/1995 | 12/31/2100 |
| 13 | Headquarters (HQ) | Ministry of Education                        | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 3/24/1995 | 12/31/2100 |
| 14 | Headquarters (HQ) | Ministry of the Environment                  | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 3/24/1995 | 12/31/2100 |
| 15 | Headquarters (HQ) | Ministry of Ecology and Biological Resources | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 3/27/1995 | 12/31/2100 |
| 16 | Headquarters (HQ) | Government of the Kingdom of Norway          | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | Mission: Education. The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/5/1995  | 12/31/2100 |
| 17 | Headquarters (HQ) | Ministry of Education and Sport              | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 4/12/1995 | 12/31/2100 |
| 18 | Headquarters (HQ) | Federal Ministry of Education                | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 4/20/1995 | 12/31/2100 |
| 19 | Headquarters (HQ) | Ministry of Education, Youth, and Sport      | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.                     | 4/20/1995 | 12/31/2100 |

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|    |                   |   |  |                                      |   |           |            |
|----|-------------------|---|--|--------------------------------------|---|-----------|------------|
| 20 | Headquarters (HQ) | Ministry of Education                                       | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 4/21/1995 | 12/31/2100 |
| 21 | Headquarters (HQ) | Ministry of Housing, Land Use Planning, and the Environment | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 4/21/1995 | 12/31/2100 |
| 22 | Headquarters (HQ) | Ministry of Sustainable Development and Planning (MDSP)     | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 4/22/1995 | 12/31/2100 |
| 23 | Headquarters (HQ) | Government of Japan   | Japan Cross-Waiver of Liability for Cooperation in Peaceful Exploration and Use of Outer Space | Umbrella/Framework Agreement (UM/FW) | Agreement establishing a cross-waiver of liability for cooperation in the exploration and use of space for peaceful purposes to go into force on the date on which the governments of the United States and Japan exchange notes informing each other that their respective legal procedures necessary for entry into force have been completed. That exchange of notes is agreement JA-0292 of 07/20/1995. See, also, agreement JA-0290 of 10/25/1994. All merged here now, others deleted. Note that this cross waiver does not apply to ISS Cooperation. | 4/24/1995 | 12/31/2100 |
| 24 | Headquarters (HQ) | Ministry of National Education                              | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 4/28/1995 | 12/31/2100 |
| 25 | Headquarters (HQ) | Ministry of National Education                              | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 5/5/1995  | 12/31/2100 |
| 26 | Headquarters (HQ) | Ministry of Education                                       | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 5/22/1995 | 12/31/2100 |
| 27 | Headquarters (HQ) | Ministry of Education                                       | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 6/9/1995  | 12/31/2100 |
| 28 | Headquarters (HQ) | Department of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 6/12/1995 | 12/31/2100 |
| 29 | Headquarters (HQ) | Ministry of Culture and Education                           | Global Learning and Observations to Benefit the Environment (GLOBE)                            | Project-Specific Agreement (PSA)     | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 6/28/1995 | 12/31/2100 |

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|----|-------------------|--|---|----------------------------------|--|------------|------------|
| 30 | Headquarters (HQ) | Ministry of Environment of Tunisia                   | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 7/27/1995  | 12/31/2100 |
| 31 | Headquarters (HQ) | National Agency for Education                        | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 8/23/1995  | 12/31/2100 |
| 32 | Headquarters (HQ) | Ministry of Planning and Cooperation                 | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 9/27/1995  | 12/31/2100 |
| 33 | Headquarters (HQ) | Ministry of Education                                | Global Learning and Observations to benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 12/11/1995 | 12/31/2100 |
| 34 | Headquarters (HQ) | Ministry of National Education and Religious Affairs | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 12/12/1995 | 12/31/2100 |
| 35 | Headquarters (HQ) | Ministry of National Education                       | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 3/27/1996  | 12/31/2100 |
| 36 | Headquarters (HQ) | Ministry of the Environment and Energy               | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/22/1996  | 12/31/2100 |
| 37 | Headquarters (HQ) | Education Ministry                                   | Global Learning and Observations to benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/22/1996  | 12/31/2100 |
| 38 | Headquarters (HQ) | Department of the Environment                        | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 5/1/1996   | 12/31/2100 |
| 39 | Headquarters (HQ) | Ministry of Education                                | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 6/19/1996  | 12/31/2100 |

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|    |                   |   |   |                                  |  |            |            |
|----|-------------------|---|---|----------------------------------|--|------------|------------|
| 40 | Headquarters (HQ) | National Environmental Agency                             | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 7/12/1996  | 12/31/2100 |
| 41 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 7/16/1996  | 12/31/2100 |
| 42 | Headquarters (HQ) | Ministry of National Education and Professional Training  | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 10/10/1996 | 12/31/2100 |
| 43 | Headquarters (HQ) | Republic of Marshall Islands Government                   | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 10/17/1996 | 12/31/2100 |
| 44 | Headquarters (HQ) | Ministry of Environment                                   | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 10/31/1996 | 12/31/2100 |
| 45 | Headquarters (HQ) | Ministry of Environment, Natural Resources, and Fisheries | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 11/15/1996 | 12/31/2100 |
| 46 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 1/21/1997  | 12/31/2100 |
| 47 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 1/28/1997  | 12/31/2100 |
| 48 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 1/30/1997  | 12/31/2100 |
| 49 | Headquarters (HQ) | Government of South Africa                                | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 2/17/1997  | 12/31/2100 |

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|    |                   |   |   |                                  |  |           |            |
|----|-------------------|---|---|----------------------------------|--|-----------|------------|
| 50 | Headquarters (HQ) | Ministry of Education and Economic Development of Bermuda | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/1/1997  | 12/31/2100 |
| 51 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/2/1997  | 12/31/2100 |
| 52 | Headquarters (HQ) | Government of Canada                                      | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/7/1997  | 12/31/2100 |
| 53 | Headquarters (HQ) | Government of Mongolia                                    | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 5/6/1997  | 12/31/2100 |
| 54 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 5/29/1997 | 12/31/2100 |
| 55 | Headquarters (HQ) | Ministry of Science and Culture                           | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 5/30/1997 | 12/31/2100 |
| 56 | Headquarters (HQ) | Ministry of Secondary and Primary Education               | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 6/11/1997 | 12/31/2100 |
| 57 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 6/20/1997 | 1/1/2100   |
| 58 | Headquarters (HQ) | National Environmental Council                            | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 7/18/1997 | 12/31/2100 |
| 59 | Headquarters (HQ) | Ministry of Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 9/15/1997 | 12/31/2100 |

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|    |                            |   |   |   |   |            |            |
|----|----------------------------|---|---|---|---|------------|------------|
| 60 | Headquarters (HQ)          | Ministry of Basic Education and Culture   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 10/8/1997  | 12/31/2100 |
| 61 | Johnson Space Center (JSC) | Italian Space Agency (ASI)  | Memorandum of Understanding (MOU) Between NASA and the Italian Space Agency (ASI) for the Design, Development, Operation and Utilization of Three Mini-Pressurized Logistics Modules for the International Space Station (ISS)  | Project-Specific Agreement (PSA)        | This Memorandum of Understanding (MOU) agreement supersedes agreement IT-0120 of 12/06/1991, substituting three Mini Pressurized Logistics Modules (MPLMs) as the components to be furnished by Italy for the two MPLMs and a Mini Laboratory called for in IT-0120. In exchange, NASA will launch the MPLMs on the Shuttle and provide ASI .85 per cent of pressurized user accommodations; .85 per cent of accommodations for external payloads, and .85 per cent of utilization resources, and launch ASI's utilization on the Shuttle. NASA will also provide ASI one ASI-provided ISS crew member for one on-orbit increment every five years, with a minimum of 3 crew opportunities. The effective duration of the agreement is through the end of the ISS Program; i.e., December 31, 2020. Dip Notes required to enter | 10/9/1997  | 12/31/2024 |
| 62 | Headquarters (HQ)          | National Department of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 11/7/1997  | 12/31/2100 |
| 63 | Headquarters (HQ)          | Ministry of National Education and Professional Training  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 11/13/1997 | 12/31/2100 |
| 64 | Headquarters (HQ)          | Ministry of Environment, Local Government, and Rural Development  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 11/18/1997 | 12/31/2100 |
| 65 | Headquarters (HQ)          | Government of the Republic of Mali  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 11/19/1997 | 12/31/2100 |
| 66 | Headquarters (HQ)          | National Central School of Agriculture  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 12/5/1997  | 12/31/2100 |
| 67 | Headquarters (HQ)          | Ministry of Education and Popular Development   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 12/23/1997 | 12/31/2100 |
| 68 | Johnson Space Center (JSC) | European Space Agency (ESA)   | Memorandum of Understanding (MOU) Between NASA and the European Space Agency (ESA) Concerning Cooperation on the Civil International Space Station (ISS)  | Implementing Arrangement/Agreement (IA) | The specific objectives of the MOU are: to provide the basis for cooperation between NASA and ESA in the detailed design, development, operation, and utilization of the permanently inhabited civil ISS for peaceful purposes, in accordance with international law; to provide a basis for cooperation that maximizes the total capability of the Space Station to accommodate user needs and that ensures that the Space Station is operated in a manner that is safe, efficient, and effective for both Space Station users and Space Station operators. An exchange of letters from ESA to NASA, dated Nov. 27, 2007, with NASA's response to ESA, dated Nov. 27, 2007, entered the MOU into force.  | 1/29/1998  | 12/31/2024 |
| 69 | Johnson Space Center (JSC) | Canadian Space Agency (CSA), Japan Aerospace Exploration Agency (JAXA), European Space Agency (ESA), Russian Federal Space Agency (Roskosmos) | Umbrella/Framework Agreement Among the Government of Canada, Governments of Member States of the European Space Agency (ESA), the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station | Umbrella/Framework Agreement (UM/FW)    | Umbrella/Framework Agreement: Superseded the Intergovernmental Agreement, dated September 29, 1988, (MULT-0001-0). Agreement Among the member countries of European Space Agency (ESA), Canada, Japan, and Russia. The Space Station elements to be provided by each Partner are detailed in the Annex. Cooperation between NASA and each individual Partner will be specified in Memorandum of Understanding's (MOU's), pursuant to this Agreement, and cooperation between NASA and each individual Partner will be specified in Implementing Arrangements pursuant to the MOUs.  | 1/29/1998  | 12/31/2024 |

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| 70 | Johnson Space Center (JSC) | Russian Federal Space Agency (Roskosmos)                                 | Memorandum of Understanding (MOU) Between NASA and the Russian Space Agency Concerning Cooperation on the Civil International Space Station              | Implementing Arrangement/Agreement (IA) | The specific objectives of this Memorandum of Understanding (MOU) are: to provide the basis for cooperation between NASA and RSA in the detailed design, development, operation and utilization of the permanently inhabited civil international Space Station for peaceful purposes, in accordance with international law; to provide a basis for cooperation that maximizes the total capability of the Space Station to accommodate user needs and that ensures that the Space Station is operated in a manner that is safe, efficient and effective for both Space Station users and Space Station operators. Requires Exchange of Diplomatic Notes to enter into force. Implementing Arrangement under the IGA for ISS. Russia sent dip note for this Agreement to enter into force dated March 27, 1998. Russian Dip Note is attached. U.S. Dip | 1/29/1998  | 12/31/2024 |
| 71 | Johnson Space Center (JSC) | Canadian Space Agency (CSA)  | Memorandum of Understanding (MOU) Between NASA and the Canadian Space Agency (CSA) Concerning Cooperation on the Civil International Space Station (ISS) | Implementing Arrangement/Agreement (IA) | Specific objectives of this MOU are: to provide the basis for cooperation between NASA and CSA in the detailed design, development, operation and utilization of the permanently inhabited civil international Space Station for peaceful purposes, in accordance with international law. Exchange of Dip Notes Required for entry into force. Dip Notes not available.   | 1/29/1998  | 12/31/2030 |
| 72 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 3/20/1998  | 12/31/2100 |
| 73 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 4/16/1998  | 12/31/2100 |
| 74 | Headquarters (HQ)          | Federal Department for Environment, Transport, Energy, and Communication | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 4/22/1998  | 12/31/2100 |
| 75 | Headquarters (HQ)          | Government of Spain  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 5/5/1998   | 12/31/2100 |
| 76 | Headquarters (HQ)          | Ministry of Pre-University Education                                     | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 5/14/1998  | 12/31/2100 |
| 77 | Headquarters (HQ)          | Ministry of Foreign Affairs  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists, together to study the global environment.   | 8/24/1998  | 12/31/2100 |
| 78 | Headquarters (HQ)          | Ministry of Education and Science  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 9/8/1998   | 12/31/2100 |
| 79 | Headquarters (HQ)          | Ministry of Education and the Environment                                | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 10/28/1998 | 12/31/2100 |

Active International Agreements by Signature Date (as of June 30, 2023)

|    |                   |   |   |                                  |  |            |            |
|----|-------------------|---|---|----------------------------------|--|------------|------------|
| 80 | Headquarters (HQ) | Ministry of National Education                                  | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 11/6/1998  | 12/31/2100 |
| 81 | Headquarters (HQ) | Ministry of Education and Culture                               | Global Learning and Observations to benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 11/24/1998 | 12/31/2100 |
| 82 | Headquarters (HQ) | Government of Uganda  | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 11/26/1998 | 12/31/2100 |
| 83 | Headquarters (HQ) | Ministry of Secondary, Higher Education and Scientific Research | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 12/18/1998 | 12/31/2100 |
| 84 | Headquarters (HQ) | Ministry of Environment   | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 12/23/1998 | 12/31/2100 |
| 85 | Headquarters (HQ) | Department of Science and Technology                            | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 1/14/1999  | 12/31/2100 |
| 86 | Headquarters (HQ) | Ministry of Education and Science                               | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 1/27/1999  | 12/31/2100 |
| 87 | Headquarters (HQ) | Ministry of Education   | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 3/10/1999  | 12/31/2100 |
| 88 | Headquarters (HQ) | Government of Kuwait  | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 4/12/1999  | 12/31/2100 |
| 89 | Headquarters (HQ) | Ministry of Education   | Global Learning and Observations to Benefit the Environment (GLOBE) | Project-Specific Agreement (PSA) | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment. | 5/27/1999  | 12/31/2100 |

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|    |                            |  |  |   |   |            |            |
|----|----------------------------|--|--|---|---|------------|------------|
| 90 | Headquarters (HQ)          | Federal Environmental Agency                                   | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 6/6/1999   | 12/31/2100 |
| 91 | Headquarters (HQ)          | Institute for the Promotion of Teaching Science and Technology | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 9/30/1999  | 12/31/2100 |
| 92 | Headquarters (HQ)          | Central Environmental Authority                                | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 12/20/1999 | 12/31/2100 |
| 93 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 2/29/2000  | 12/31/2100 |
| 94 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 3/2/2000   | 12/31/2100 |
| 95 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 3/3/2000   | 12/31/2100 |
| 96 | Headquarters (HQ)          | Government of Monaco   | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 6/29/2000  | 12/31/2100 |
| 97 | Headquarters (HQ)          | The Ministry of Education and Youth                            | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 7/12/2000  | 12/31/2100 |
| 98 | Johnson Space Center (JSC) | European Space Agency (ESA)                                    | Implementing Arrangement (IA) Between NASA and the European Space Agency's (ESA) Concerning Provision of a Cupola in Exchange for NASA's Provision of Shuttle Launch and Return Services for Five External European Payloads | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) Pursuant to Articles 1.1 and 16.4 of the NASA/ESA ISS MOU, this Arrangement provides for the provision by ESA of a Cupola and additional goods and services to NASA for the ISS Program in exchange for NASA's provision of Space Shuttle launch and return transportation services for five ESA external ISS payloads. | 8/7/2000   | 12/31/2024 |
| 99 | Headquarters (HQ)          | Ministry of Foreign Affairs                                    | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 8/9/2000   | 12/31/2100 |

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|     |                            |  |   |   |  |            |            |
|-----|----------------------------|--|---|---|--|------------|------------|
| 100 | Headquarters (HQ)          | Ministry of Environment and Forests                                      | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 8/25/2000  | 12/31/2100 |
| 101 | Headquarters (HQ)          | Ministry of Education and Higher Education                               | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 9/27/2000  | 12/31/2100 |
| 102 | Headquarters (HQ)          | Ministry of Science and Technology                                       | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 10/4/2000  | 12/31/2100 |
| 103 | Headquarters (HQ)          | Ministry of Education and Culture and the Secretariat of the Environment | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 10/27/2000 | 12/31/2100 |
| 104 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 6/16/2001  | 12/31/2100 |
| 105 | Johnson Space Center (JSC) | Canadian Space Agency (CSA)  | An Implementing Arrangement (IA) Between NASA and The Canadian Space Agency (CSA) Regarding a Barter of International Space Station (ISS) Supporting Services and Utilization | Implementing Arrangement/Agreement (IA) | This is an Implementing Arrangement (IA) that is entered into pursuant to the Agreement among the Government of USA, Governments of Member States of the European Space Agency, the Government of Japan, Government of Canada Concerning Cooperation on the Civil ISS (the IGA) and the MOU between NASA/CSA Concerning Cooperation on the Civil International Space Station. This Arrangement details the understanding between NASA/CSA regarding a barter of ISS supporting services and utilization and regarding a Special Purpose Dexterous Manipulator (SPDM) and Other Goods and Services Towards Fulfillment of Its Common System Operations Responsibilities Within the Context of the ISS Program and more specifically the Optional Additional Offset detailed therein, this Arrangement provides for the exercise | 8/16/2001  | 12/31/2030 |
| 106 | Headquarters (HQ)          | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 7/15/2002  | 12/31/2100 |
| 107 | Headquarters (HQ)          | Government of the Kingdom of Saudi Arabia                                | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 9/30/2002  | 12/31/2100 |
| 108 | Headquarters (HQ)          | Ministry of Education and Science  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 10/3/2002  | 12/31/2100 |
| 109 | Headquarters (HQ)          | Government of Yugoslavia (first)   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 10/17/2002 | 12/31/2100 |

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|     |                            |   |   |   |   |           |            |
|-----|----------------------------|---|---|---|---|-----------|------------|
| 110 | Headquarters (HQ)          | Ministry of Education   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 3/26/2003 | 12/31/2100 |
| 111 | Headquarters (HQ)          | The Ministry of National Education  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 8/11/2003 | 12/31/2100 |
| 112 | Headquarters (HQ)          | Ministry of Education, Science, Technology and Scientific Research                                    | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 8/21/2003 | 12/31/2100 |
| 113 | Headquarters (HQ)          | The Environment Research Centre, Ministry of Home Affairs and Environment of the Republic of Maldives | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 12/8/2003 | 12/31/2100 |
| 114 | Headquarters (HQ)          | Ministry of Education of the Islamic Republic of Mauritania   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 7/6/2004  | 1/1/2100   |
| 115 | Headquarters (HQ)          | Ministry of Primary and Secondary Education of the Republic of Congo                                  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 7/28/2005 | 12/31/2100 |
| 116 | Headquarters (HQ)          | For the Ministry of Basic Education and Alphabetization   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 8/11/2005 | 12/31/2100 |
| 117 | Headquarters (HQ)          | Ministry of Education   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 8/24/2005 | 12/31/2100 |
| 118 | Johnson Space Center (JSC) | Russian Federal Space Agency (Roskosmos)  | Addendum 2: Implementing Arrangement entitled "Protocol Including Terms, Conditions and Assumptions, Summary Balance of Contribution and Obligations to International Space Station (ISS) and Resulting Rights of NASA and RSA to ISS Utilization Accommodations and Resources, and Flight Opportunities" (Balance Agreement) Between | Implementing Arrangement/Agreement (IA) | Addendum 2: Also referred to as the "Second Addendum to the Balance Agreement," this Addendum adjusts the balance of the contributions of the Parties previously established in the original Balance Agreement and Addendum, due to changes in the timeline, programmatic changes, et. al. It effects a partial rebalance of the NASA and Roskosmos efforts regarding crew size and composition, science power platform and its arrays, upmass, habitation, electrical power, stowage, communication services, propellant, waste removal services, water, and liaison office and travel support through December 31, 2011. The Agreement will remain in force until such time as the MOU ceases to be in force. | 7/1/2006  | 12/31/2024 |
| 119 | All NASA Centers           | National Centre for Space Studies (CNES)  | Framework Agreement between U.S. Govt. and the French Govt. for cooperative activities in the Exploration and Use of Outer Space for Peaceful Purposes.   | Umbrella/Framework Agreement (UM/FW)    | Framework Agreement between U.S. Govt. and the French Govt. for cooperative activities in the Exploration and Use of Outer Space for Peaceful Purposes. NASA/CNES/NOAA are identified as implementing agencies. Agreement Signatories: Administrator Michael Griffin of the National Aeronautics and Space Administration (NASA) signed for the United States and Minister Francois Goulard of the Ministry for Higher Education and Research signed for France. Dipnote signed by the Department of State on 4/2/08, referring to the Embassy of France's note No. 505 dated 3/14/2008. Framework Signature Date: 1/23/2007; Entry into Force Date: 4/2/2008; Expiration Date: 4/2/2018.                       | 1/23/2007 | 4/2/2100   |

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|     |                                    |  |   |   |  |            |            |
|-----|------------------------------------|--|---|---|--|------------|------------|
| 120 | Headquarters (HQ)                  | Ministry of Education  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 11/29/2007 | 12/31/2100 |
| 121 | All NASA Centers                   | Indian Space Research Organization (ISRO)  | NASA-Indian Space Research Organization (ISRO) Framework Agreement for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes  | Umbrella/Framework Agreement (UM/FW)    | Under the NASA-Indian Space Research Organization (ISRO) Framework Agreement, cooperative programs may be undertaken in the following areas: Earth science, observation, and monitoring; Space Science: Exploration systems; Space operations; and other relevant areas of mutual interest....(review agreement for more details regarding what cooperation may be used when implementing....)   | 2/1/2008   | 1/1/2100   |
| 122 | Goddard Space Flight Center (GSFC) | National Centre for Space Studies (CNES), European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) | Ocean Surface Topography Mission (OSTM)   | Project-Specific Agreement (PSA)        | The objective of the Ocean Surface Topography (OSTM) mission is to bring high-precision altimetry to a full operational status through the continuation of the TOPEX/Poseidon and Jason missions. OSTM will be launched aboard the Jason-2 satellite and will be a follow-on to the Jason mission. CNES will provide the PROTEUS platform for the Jason-2 satellite, which is scheduled to launch in June 2008 aboard a NASA-provided Boeing Delta II from Vandenberg Air Force Base, CA. OSTM will provide data for operational and research use for marine meteorology and sea state forecasting, operational oceanography, seasonal forecasting, climate monitoring, and ocean, Earth system, and climate research.   | 4/16/2008  | 12/31/2025 |
| 123 | Headquarters (HQ)                  | Japan Aerospace Exploration Agency (JAXA)  | NASA-JAXA Joint Understanding   | Umbrella/Framework Agreement (UM/FW)    | This document is similar to a framework agreement wherein NASA and JAXA have agreed upon standard legal text when concluding lower-level cooperative letters of agreement. There is no contribution from either party.   | 10/16/2008 | 12/31/2100 |
| 124 | Headquarters (HQ)                  | Ministry of Education of the Sultanate of Oman   | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle, and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.  | 12/8/2009  | 1/1/2100   |
| 125 | Headquarters (HQ)                  | National Centre for Space Studies (CNES), European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) | Memorandum of Understanding (MOU) among National Oceanographic and Atmospheric Administration (NOAA), NASA, European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) and National Center for Space Studies [Centre National d'Etudes Spatiales] (CNES) for Cooperation in the Jason-3 Program | Project-Specific Agreement (PSA)        | Memorandum of Understanding (MOU): The Jason-3 Program will design to provide continuity to the accuracy and coverage of the Topex/Poseidon, Jason-1 and OSTM/Jason-2 missions. These three missions collected data for scientific research and support operational applications related to extreme weather events, operational oceanography, climate applications and forecasting. NOAA and The European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) are the lead agencies. NASA and CNES are providing hardware to NOAA and EUMETSAT under separate domestic agreements. NASA's involvement in collaborative activities is very limited -- NASA is supporting NOAA in science selection and, in return, obtaining science data.  | 7/13/2010  | 12/31/2030 |
| 126 | Headquarters (HQ)                  | Federative Republic of Brazil  | Brazil Framework Agreement on Cooperation in the Peaceful Uses of Outer Space   | Umbrella/Framework Agreement (UM/FW)    | This is a Framework Agreement between the United States Government and the Government of the Federative Republic of Brazil on the cooperation in the peaceful uses of outer space. Recalling their useful cooperation through implementation of cooperative activities in a broad range of space science and applications areas and considering the desirability of enhanced cooperation between the agencies have potential benefits to all nations.  | 3/19/2011  | 3/19/2031  |
| 127 | Goddard Space Flight Center (GSFC) | Kinki University   | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | Agreement establishes sun photometer stations in Japan, Shirahama (Wakayama Prefecture).   | 6/24/2011  | 3/31/2026  |
| 128 | Langley Research Center (LaRC)     | National Centre for Space Studies (CNES)   | Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) for the Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations (CALIPSO) Mission  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) to continue the operations of the joint NASA-CNES CALIPSO mission. Replaces the original Memorandum of Understanding (MOU) for this cooperation.   | 9/8/2011   | 3/31/2026  |
| 129 | Goddard Space Flight Center (GSFC) | University of Liege  | Belgium (CSL/BELSPO) Solar Probe Plus (SPP) Letter of Agreement   | Project-Specific Agreement (PSA)        | NASA will develop the Solar Probe Plus (SPP), a spacecraft equipped to perform scientific studies of the Sun. The primary scientific objectives to be carried out during the mission include: to determine the structure and dynamics of the magnetic fields at the sources of both fast and slow solar wind; to trace the flow of energy that heats the corona and accelerates the solar wind; and to determine what mechanisms accelerate and transport energetic particles. Instruments include a wide-field imager, fast ion analyzer, fast electron analyzer, energetic particle instrument, magnetometer, and plasma wave instrument. This Agreement will cover the Belgian contributions to the SPP mission, specifically the contributions to the modeling, testing, and evaluation of the WISPR Investigation on the SPP. | 10/10/2011 | 9/30/2026  |

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|     |   |   |   |   |   |            |            |
|-----|---|---|---|---|---|------------|------------|
| 130 | All NASA Centers                              | Government of Argentina   | Framework Agreement Between the Government of the United States of America and the Government of the Argentine Republic on Cooperation in the Peaceful Uses of Outer Space                            | Umbrella/Framework Agreement (UM/FW)    | This Agreement provides the parties with the foundation to needed to identify areas of mutual interest and seek to develop cooperative programs or projects, hereinafter referred to as Programs, in the exploration and peaceful uses of outer space and shall work closely together to this end. The agreement was signed on October 25, 2011 and entered into force on July 30, 2013 when the second of two dip notes was exchanged. The agreement will be in force for 10 years from July 30, 2013.   | 10/25/2011 | 7/30/2023  |
| 131 | Goddard Space Flight Center (GSFC)            | European Space Agency (ESA)                                       | Memorandum of Understanding (MOU) Between the European Space Agency (ESA) and NASA Concerning the Solar Orbiter Mission   | Project-Specific Agreement (PSA)        | The Solar Orbiter (SO) mission will be specifically devoted to solar and heliospheric physics, providing close-up and high-latitude observations of the Sun. The goal of the mission will be to explore the near-Sun environment to improve the understanding of how the Sun determines the environment of the inner solar system and, more broadly, generates the heliosphere itself, and how fundamental plasma physical processes operate near the Sun. SO is an international collaboration comprising many science instruments and suites, including one instrument and one sensor provided by NASA. ESA will provide the spacecraft, while NASA will provide the launch. The SO orbiter collaboration is taking place within ESA's Cosmic Vision line of missions within the Science Programme. The SO mission is currently planned for a         | 3/6/2012   | 12/31/2025 |
| 132 | Headquarters (HQ)                             | German Aerospace Center (DLR)                                     | Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Solar Probe Plus (SPP) Mission  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) Between NASA and DLR that will develop the Solar Probe Plus (SPP), a spacecraft equipped to perform scientific studies of the Sun. NASA plans to launch the SPP in 2018 from Cape Canaveral, Florida, aboard an Atlas V class launch vehicle. The primary scientific objectives, to be carried out during the mission, will be to determine the structure and dynamics of the magnetic fields at the sources of both fast and slow solar wind, to trace the flow of energy that heats the corona and accelerates the solar wind, and to determine what mechanisms accelerate and transport energetic particles. Instruments include a wide-field imager, fast ion analyzer, fast electron analyzer, energetic particle instrument, magnetometer, and plasma wave instrument. DLR and NASA will be cooperating on the Wide | 3/20/2012  | 9/30/2026  |
| 133 | Goddard Space Flight Center (GSFC)            | University of Liege   | Solar Orbiter Collaboration   | Project-Specific Agreement (PSA)        | The Centre Spatial de Liège (Université de Liège) will provide engineering support to the NASA-provided SoloHi instrument on the European Space Agency (ESA)-led Solar Orbiter mission. The Belgian Federal Science Policy Office (BELSPO) is providing the funding.  | 10/2/2012  | 12/31/2025 |
| 134 | Goddard Space Flight Center (GSFC)            | University of Bern  | Solar Orbiter Collaboration   | Project-Specific Agreement (PSA)        | University of Bern will calibrate the NASA-provided Heavy Ion Spectrometer (HIS) instrument for the European Space Agency (ESA) -led Solar Orbiter mission.   | 10/15/2012 | 12/31/2025 |
| 135 | Goddard Space Flight Center (GSFC)            | United Kingdom Space Agency (UKSA)                                | Solar Orbiter Agreement - Heavy Ion Sensor (HIS)  | Project-Specific Agreement (PSA)        | Agreement for the fabrication, delivery, integration, and data for the NASA-provided HIS to Mullard Space Science Laboratory (MSSL) for integration with the UK Space Agency-provided Solar Wind Analyzer (SWA) instrument suite. The SWA will be integrated onto the ESA-provided Solar Orbiter spacecraft. This Agreement includes provisions for interface coordination, delivery of the payload and its components to the Parties for testing, integration, and science data and data products sharing and archiving.   | 2/19/2013  | 12/31/2025 |
| 136 | Headquarters (HQ)                             | Government of the Italian Republic                                | Framework Agreement Between the Government of the United States of America and the Government of the Italian Republic for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes | Umbrella/Framework Agreement (UM/FW)    | Government to Government Agreement between the U.S. and the Italian Republic for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes signed on March 19, 2013. This Agreement enters into force on the date of the last note of an exchange of diplomatic notes in which the Parties notify each other of the completion of their internal procedures necessary for the entry into force of this Agreement. (Italy Note Verbale signed January 19, 2016. Dept. of State Dip Note 195 stamped February 18, 2016.)  | 3/19/2013  | 2/11/2026  |
| 137 | George C. Marshall Space Flight Center (MSFC) | Space Research Institute (IKI), Russian Academy of Sciences (RAS) | Space Research Institute of the Russian Academy of Sciences (IKI): Cooperation on the ART-XC Instrument Onboard the Russian Spectrum Roentgen Mission (SPG)   | Project-Specific Agreement (PSA)        | NASA will provide four mirror modules for portions of science data from the Russian Instrument.   | 4/6/2013   | 12/31/2025 |
| 138 | Goddard Space Flight Center (GSFC)            | National Centre for Space Studies (CNES)                          | Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) of France on the Scientific Instruments of the Solar Probe Plus (SPP) Payload                             | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) Between NASA and CNES as NASA's Science Mission Directorate is sponsoring the development of the SPP mission, which is a project in the Living with a Star Program, a series of missions designed to gather critical information about the Sun and its effects on Earth, human activities, and other planetary systems. NASA will develop the SPP, a spacecraft equipped to perform scientific studies of the Sun. NASA plans to launch the SPP in 2018 from Cape Canaveral, Florida. CNES is sponsoring French collaboration on the FIELDS investigation, which consists of a Plasma Wave Instrument and a Magnetometer, and the Solar Wind Electrons Alphas and Protons (SWEAP) investigation, consisting of a Solar Probe Cup (SPC), and a Solar Probe Analyzer (SPAN).  | 6/10/2013  | 9/30/2026  |
| 139 | George C. Marshall Space Flight Center (MSFC) | Italian Space Agency (ASI)  | Memorandum of Understanding (MOU) Between NASA and Italian Space Agency (ASI) Concerning Cooperation the BepiColombo Mission  | Project-Specific Agreement (PSA)        | Memorandum of Understanding (MOU) between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency (ASI) Concerning Cooperation the BepiColombo Mission.  | 6/20/2013  | 12/31/2023 |

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| 140 | Goddard Space Flight Center (GSFC) | University of Valladolid (UVA)                            | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and the Universidad de Valladolid of Spain will cooperate on the AERONET program. NASA will provide equipment on loan which the Universidad de Valladolid will host at a mutually agreed location.   | 9/12/2013  | 9/30/2023  |
| 141 | Goddard Space Flight Center (GSFC) | Canadian Space Agency (CSA)                               | Amendment 1: Implementing Arrangement (IA): Modification to the Implementing Arrangement (IA) Between the NASA and the Canadian Space Agency (CSA) on the Origins, Spectral Interpretation, Resources Identification, and Security-Regolith Explorer (OSIRIS-REx) Mission | Implementing Arrangement/Agreement (IA) | This is an amendment 1 to the original Implementing Arrangement (IA) to add NASA delivery of electronic components to CSA. OSIRIS-REx is a NASA-led asteroid sample return mission currently planned for launch in 2016. It is scheduled to rendezvous with RQ36 in 2019 and the sample return capsule should land on Earth in 2023. CSA is expected to provide the OSIRIS-REx Laser Altimeter (OLA) and members of the science team, with the University of Calgary leading the OLA science team. NASA will transfer to CSA 4% by mass of the returned bulk sample and 4% by surface area of the returned contact pad sample. This is an IA under the Canada Framework Agreement.  | 9/25/2013  | 12/31/2025 |
| 142 | Goddard Space Flight Center (GSFC) | National Centre for Space Studies (CNES)                  | Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) on the Origins Spectral Interpretation Resource Identification Security-Regolith Explorer (OSIRIS-REx) Mission  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) Between NASA and CNES in cooperation on OSIRIS-REx, a NASA-led asteroid sample return mission currently planned for launch in 2016. It is scheduled to rendezvous with asteroid RQ36 in 2019 and the sample return capsule should land on Earth in 2023. CNES is expected to support Co-Investigators from France to provide important modeling work and lead key astronomical observations of RQ36. This is an IA under the U.S.-France Framework Agreement.   | 12/9/2013  | 12/31/2025 |
| 143 | Goddard Space Flight Center (GSFC) | Universidad de Concepcion                                 | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and the Universidad de Concepcion of Chile will cooperate on the AERONET program. NASA will provide equipment on loan which the Universidad de Concepcion will host at a mutually agreed location.   | 12/20/2013 | 10/31/2023 |
| 144 | Goddard Space Flight Center (GSFC) | Karunya University  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and Karunya University (KU) will cooperate on the operation of an AERONET subphotometer station and/or Lidar stations located at KU. NASA provide the equipment, and USM provides the site.  | 1/30/2014  | 6/30/2024  |
| 145 | Goddard Space Flight Center (GSFC) | National Centre for Space Studies (CNES)                  | Space Geodesy: Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) of France on Space Geodesy Activities and Applications   | Implementing Arrangement/Agreement (IA) | Space Geodesy: Implementing Arrangement (IA) Between NASA and CNES, Parties will share data and host each other's instruments. This IA falls under the US-France Framework.   | 4/23/2014  | 12/31/2024 |
| 146 | Goddard Space Flight Center (GSFC) | Gobabeb Research and Technical Centre                     | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and the Gobabeb Research and Technical Centre of Namibia will cooperate on the AERONET program. NASA will provide equipment on loan which Gobabeb will host at a mutually agreed location.   | 6/26/2014  | 3/31/2024  |
| 147 | Goddard Space Flight Center (GSFC) | University of Blida                                       | Amendment and Extension 1: Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | Amendment and Extension 1: Extension of 2002 AERONET Agreement: NASA provides the AERONET equipment; they provide the location and support of the system. RE: Sun photometer station in Algeria.  | 7/3/2014   | 6/1/2024   |
| 148 | Headquarters (HQ)                  | Ministry of Education and Economic Development of Bermuda | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 7/3/2014   | 1/1/2100   |
| 149 | Goddard Space Flight Center (GSFC) | National Centre for Space Studies (CNES)                  | Implementing Arrangement (IA) Between NASA and the National Center for Space Studies (CNES) of France on the Scientific Payload of the Solar Orbiter Mission  | Project-Specific Agreement (PSA)        | Implementing Arrangement (IA) Between NASA and CNES on a Solar Orbiter that is a European Space Agency (ESA) mission carried out in cooperation with NASA that will explore the near-Sun environment to improve the understanding of how the Sun creates the environment of the inner solar system, generates the heliosphere itself, and how fundamental plasma physical processes operate near the sun. ESA is providing the spacecraft bus, integration of the instruments onto the bus, mission operations, and overall science operations. NASA is providing instrumentation and an intermediate class launch vehicle. NASA will lead the provision to ESA of the Solar Orbiter Heliospheric Imager (SoloHI), and the Heavy Ion Sensor (HIS), which will be integrated onto the spacecraft as part of the Solar Wind Analyzer (SWA) instrument | 8/7/2014   | 12/31/2025 |

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| 150 | Jet Propulsion Laboratory (JPL)    | Indian Space Research Organization (ISRO)   | NASA-Indian Space Research Organization (ISRO) Synthetic Aperture Radar (NISAR)  | Implementing Arrangement/Agreement (IA) | This Implementing Arrangement (IA) for the NASA-ISRO Synthetic Aperture Radar (NISAR) mission is concluded under and subject to the Framework Agreement between the National Aeronautics and Space Administration and the Indian Space Research Organisation for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, signed on February 1, 2008. In this cooperative activity, NASA will provide: the L-band Synthetic Aperture Radar (SAR) instrument, including a reflector/boom assembly; a high rate telecommunication subsystem for science data; GPS receivers; a solid state recorder; and a payload data subsystem. ISRO will provide: the S-band SAR; the spacecraft bus; and the launch vehicle and associated launch services. NASA will download all science data to U.S. ground stations and ISRO              | 9/30/2014  | 9/30/2034  |
| 151 | Headquarters (HQ)                  | Japan Aerospace Exploration Agency (JAXA)   | Hayabusa-2 and OSIRIS-REx Memorandum of Understanding (MOU)  | Project-Specific Agreement (PSA)        | Hayabusa2 is a JAXA mission, on which NASA is collaborating, which builds on lessons learned from JAXA's initial Hayabusa mission that collected samples from a small asteroid named Itokawa and returned them to Earth in June 2010. Hayabusa-2's target is a 1 kilometer-wide asteroid named 1999 JU3, a C-type asteroid which is thought to contain more organic material than other asteroids. Scientists hope to better understand how the solar system evolved by studying samples from these asteroids. NASA and JAXA are cooperating on the mission science and NASA will receive a portion of the Hayabusa2 sample in exchange for providing Deep Space Network communications and navigation support for the mission. In addition, JAXA and NASA will collaborate on the science of NASA's Origins, Spectral Interpretation, Resource      | 11/17/2014 | 11/17/2025 |
| 152 | Goddard Space Flight Center (GSFC) | National Commission on Space Activities (CONAE)   | Implementing Arrangement (IA) Between NASA and the National Commission on Space Activities (CONAE) of the Argentine Republic for Cooperation in Solar and Space Physics (Heliophysics) and Space Weather Research                            | Implementing Arrangement/Agreement (IA) | This is a data-sharing agreement under which Argentina will provide data downlink for the NASA Van Allen Probes mission, which helps scientists understand the Sun's influence on Earth and near-Earth space by studying the Earth's radiation belts on various scales of space and time. The Van Allen Probes mission is part of NASA's Living with a Star program. Data sharing for this mission will increase scientific output and productivity to the benefit of heliophysics overall. This is an IA under the Framework Agreement between the Government of the United States of America and the Government of the Argentine Republic on Cooperation in the Peaceful Uses of Outer Space, signed on October 2011 (the U.S.-Argentina Framework Agreement).   | 2/19/2015  | 12/31/2023 |
| 153 | Johnson Space Center (JSC)         | The University Court of The University of Edinburgh   | Reimbursable Space Act Umbrella Agreement Between NASA and The University of Edinburgh Regarding Anthropomorphic Robotic Systems   | Umbrella/Framework Agreement (UM/FW)    | JSC is leading an agency-wide effort to advance the state of the art of autonomous robot manipulation and mobility operations. JSC's goal is to develop anthropomorphic robotic "caretaker" systems for deep space missions which can provide autonomous tending of spacecraft in absence of crew, reduction of crew time for spacecraft maintenance chores, and response capability for spaceflight emergencies. These efforts led to anthropomorphic robotic demonstration systems culminating with the R5 system. Meanwhile, the UoE which is engaged in research and training related to the interactions between robots and their environments, is leading a national UK initiative on robotics research, and has expressed an interest in advancing their efforts through the reimbursable use of an advanced robotic test bed based on the R5 | 2/26/2015  | 2/26/2026  |
| 154 | Jet Propulsion Laboratory (JPL)    | Japan Aerospace Exploration Agency (JAXA), Ministry of Environment (MOE), National Institute for Environmental Studies (NIES) | Memorandum of Understanding (MOU) for Cooperation on OCO-2 and the Greenhouse Gases Observing Satellite (GOSAT) and GOSAT-2  | Project-Specific Agreement (PSA)        | Memorandum of Understanding (MOU): The GOSAT, OCO-2, and GOSAT-2 missions ("3 CO2 Missions") are elements of the Global Earth Observation System of Systems, and their measurements are expected to improve the understanding of the processes that regulate atmospheric carbon dioxide, enabling more reliable forecasts of carbon dioxide buildup and its impacts on climate change. GOSAT and GOSAT-2 contribute to Japan's implementation of the United Nations Framework Convention on Climate Change - (calibration, validation).  | 3/17/2015  | 11/20/2024 |
| 155 | Goddard Space Flight Center (GSFC) | United Nations World Meteorological Organization (WMO)  | Letter of Arrangement (LOA): Cooperation in the Micro-Pulse Lidar Network (MPLNET) as a Contributing Network   | Project-Specific Agreement (PSA)        | Letter of Arrangement (LOA) between NASA and the World Meteorological Organization Global atmosphere Watch Program (WMO/GAW) related to the recognition of the Micro-pulse Lidar Network (MPLNET) as a contributing network. Signed May 11, 2015, with no expiration date stated.  | 5/11/2015  | 5/11/2100  |
| 156 | Jet Propulsion Laboratory (JPL)    | National Centre for Space Studies (CNES)  | Implementing Arrangement (IA) Between NASA and the Centre National D'Etudes Spatiales (CNES) of France on the SuperCam Instrument for the Mars 2020 Mission  | Implementing Arrangement/Agreement (IA) | Mars 2020 is the next strategic mission in NASA's Mars Exploration Program. The mission will land a rover on the planet to conduct a wide range of scientific exploration, consistent with NASA's science goals for the Mars Exploration Program. Mars 2020's objective is to explore for signs of ancient life and habitable environments, study Martian weather and atmosphere, and study Martian geology. NASA plans to launch the mission in July 2020, and land on Mars in February 2021. NASA expects that the rover will conduct operations until at least August 2023. One of the seven scientific and exploration instruments on the Mars 2020 payload includes the SuperCam: Active and Reflectance Mineralogy, Astrobiology, Chemistry, and Imaging at Remote Distances instrument suite. NASA selected Dr. Roger Wiens of the            | 6/16/2015  | 6/30/2024  |
| 157 | Jet Propulsion Laboratory (JPL)    | National Institute for Aerospace Technology (INTA), The Spanish Centro para el Desarrollo Tecnológico Industrial (CDTI)       | Amendment: Implementation Agreement (IA) Between NASA, Center for the Development of Industrial Technology (CDTI), and National Institute of Aerospace Technology (INTA) Concerning Cooperation on the Mars Science Laboratory (MSL) Mission | Implementing Arrangement/Agreement (IA) | Amendment: Implementation Agreement (IA): In addition to extending the Mars Science Laboratory (MSL) cooperation, this amendment adds the Spanish provision of the High Gain Antenna (HGA) to the Mars 2020 mission and the Temperature and Wind on InSight (TWINS) sensors on the Interior Exploration using Seismic Investigations, Geodesy, and Heat Transport (InSight) mission.   | 6/16/2015  | 12/31/2025 |
| 158 | Headquarters (HQ)                  | Brazilian Space Agency (AEB)  | Implementing Arrangement (IA) for Cooperation Between NASA and the Brazilian Space Agency (AEB) of the Federative Republic of Brazil of Brazil in Heliophysics and Space Weather Research  | Implementing Arrangement/Agreement (IA) | NASA and the Brazilian Space Agency (AEB) signed an IA under the U.S.-Brazil Framework Agreement on Cooperation in the Peaceful Uses of Outer Space that will facilitate enhanced cooperation in the fields of solar and space physics (heliophysics) and space weather research. Under the IA, AEB, through the Brazilian National Institute for Space Research (INPE), will acquire and process space weather broadcast data from NASA's Van Allen Probes mission, which was launched in 2012. The IA also enables Brazilian participation in the research working groups of NASA heliophysics missions, including the Van Allen Probes mission and the Magnetospheric MultiScale mission, and promotes continued discussion on new projects for potential U.S.-Brazil collaboration in heliophysics and space weather research.                   | 6/30/2015  | 6/30/2025  |
| 159 | Headquarters (HQ)                  | Brazilian Space Agency (AEB)  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 6/30/2015  | 6/30/2100  |

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| 160 | Jet Propulsion Laboratory (JPL)                    | Government of Spain, National Institute for Aerospace Technology (INTA)  | Amendment 2: Scientific Cooperation Agreement Between the United States of America and the Kingdom of Spain for the NASA Tracking Station                                       | Project-Specific Agreement (PSA)     | Amendment 2: This is a continuation of cooperation in the utilization of a ground station in Spain for transmission and reception of radio-electric signals in support of space probes, spacecraft, and space science for peaceful ends. Dip notes were required to enter the agreement into force, and these came into force in November 2003. Full agreement (English & Spanish versions, plus both dip notes) now attached.   | 9/4/2015   | 11/17/2024 |
| 161 | Goddard Space Flight Center (GSFC)                 | All Nations University College in Koforidua (ANUC) of Ghana  | Cooperation in the Aerosol Robotic Network (AERONET) with All Nations University College in Koforidua, Ghana  | Project-Specific Agreement (PSA)     | Cooperative research on aerosols using sun photometers integrated into a global network.   | 9/17/2015  | 9/16/2025  |
| 162 | Goddard Space Flight Center (GSFC)                 | Polytechnic of Namibia, Namibia University of Science and Technology (NUST)  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)     | NASA and Polytechnic of Namibia will cooperate on the AERONET program. NASA will provide equipment on loan in which Gobabeb will host at a mutually agreed location.   | 9/25/2015  | 9/24/2025  |
| 163 | Headquarters (HQ)                                  | The Ministry of Education and Human Resources, Tertiary Education and Scientific Research of the Republic of Mauritius | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)     | The GLOBE Program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.   | 10/5/2015  | 10/5/2100  |
| 164 | All NASA Centers                                   | Government of the Kingdom of Sweden  | Amendment and Extension 1 of U.S./Sweden Framework Agreement - Exploration and Use of Outer Space for Peaceful Purposes   | Umbrella/Framework Agreement (UM/FW) | Amendment and Extension 1 of the Framework Agreement: U.S. and the Kingdom of Sweden agree to extend the duration of the agreement for 10 additional years, until October 14, 2025. Parties agree to amend the first sentence of Article 5.1 by replacing the word "national" with the word "applicable." Agreement between US and Sweden. Covers a multitude of civil space cooperation in Earth Science, Space Science, Biological and Physical Research, and other areas of mutual interest. Programs may be implemented using: spacecraft and space research platforms; scientific instruments onboard spacecraft and space research; sounding rocket and scientific balloon flights and campaigns; aircraft flights and campaigns; ground-based antennas for tracking and data acquisition; ground-based space research                 | 10/6/2015  | 10/14/2025 |
| 165 | Headquarters (HQ), Jet Propulsion Laboratory (JPL) | Defense Research Establishment (FFI or Forsvarets Forskning Institutt in Norwegian)                                    | Mars 2020 Radar Imagers for Mars' Subsurface Experiment (RIMFAX) Phase B-F Agreement  | Project-Specific Agreement (PSA)     | This agreement is for the Norwegian Defense Research Establishment (FFI) to provide the Radar Imagers for Mars' subsurface experiment (RIMFAX) ground penetrating radar (GPR) to NASA for the Mars 2020 rover.   | 10/20/2015 | 6/30/2024  |
| 166 | Goddard Space Flight Center (GSFC)                 | Centre for Geophysical Consultancy and Technological Transfer (CGCTT)  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)     | NASA and the Center for Geophysical Consultancy and Technological Transfer of Vietnam will cooperate on the AERONET program. NASA will provide equipment on loan which the partner will host at a mutually agreed location.  | 10/23/2015 | 10/22/2025 |
| 167 | Headquarters (HQ)                                  | Israel Space Agency (ISA)  | Framework Agreement Between NASA and the Israel Space Agency (ISA) for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes | Umbrella/Framework Agreement (UM/FW) | Framework Agreement between NASA and the Israel Space Agency (ISA) for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes.   | 10/31/2015 | 10/13/2025 |
| 168 | Headquarters (HQ), Jet Propulsion Laboratory (JPL) | University of Valladolid (UVA)   | Mars 2020 SuperCam Calibration Target Agreement   | Project-Specific Agreement (PSA)     | This agreement is for the University of Valladolid (UVA) of Spain to provide a calibration target assembly to NASA for the Mars 2020 rover's SuperCam instrument.  | 11/3/2015  | 6/30/2024  |
| 169 | George C. Marshall Space Flight Center (MSFC)      | United Kingdom Space Agency (UKSA)   | Jupiter Icy Moons Explorer (JUICE) Mission - Particle Environments Package (PEP)  | Project-Specific Agreement (PSA)     | PEP is a plasma package with six sensors to characterize the plasma environment in the Jovian system. PEP will measure positive and negative ions, electrons, exospheric neutral gas, thermal plasma, and Energetic Neutral Atoms (ENAs) in the energy range from 0.001 eV to 1 MeV. PEP will combine remote global imaging via ENAs with in situ measurements, to address all scientific objectives of the JUICE mission relevant to particle measurements. PEP will seek answers for four overarching science questions: How does the co-rotating magnetosphere of Jupiter interact with the complex and diverse environment of Ganymede? How does the rapidly rotating magnetosphere of Jupiter interact with seemingly inert Callisto? What are the governing mechanisms and their global impact of release of material into the Jupiter | 11/23/2015 | 6/30/2034  |

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| 170 | Headquarters (HQ)                  | Vietnam Academy of Science and Technology of the Socialist Republic of Vietnam  | Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA)        | The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.  | 12/9/2015  | 12/31/2100 |
| 171 | Ames Research Center (ARC)         | Korea Aerospace Research Institute (KARI)   | Agreement Between NASA and Korea Aerospace Research Institute (KARI) for Associate Membership in the NASA Solar System Exploration Research Virtual Institute (SSERVI)  | Project-Specific Agreement (PSA)        | Provides for KARI associate membership in the SSERVI, a virtual science institute based at Ames for the study of the moon and planetary bodies.   | 12/29/2015 | 12/29/2025 |
| 172 | Goddard Space Flight Center (GSFC) | German Aerospace Center (DLR)   | Amendment 1: Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Mars Organic Molecule Analyzer (MOMA) Instrument   | Implementing Arrangement/Agreement (IA) | Adds additional responsibilities to the original cooperation on the MOMA instrument. MOMA will fly on the European Space Agency (ESA) ExoMars mission.  | 1/4/2016   | 12/23/2023 |
| 173 | Goddard Space Flight Center (GSFC) | Hokkaido University (HokuDai)   | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and the partner will cooperate on the AERONET program. NASA will provide equipment on loan which Hokkaido University will house at a mutually agreed location.   | 1/6/2016   | 1/5/2026   |
| 174 | Goddard Space Flight Center (GSFC) | Taipei Economic and Cultural Representative Office in the United States (TECRO)   | Amendment: Agreement Between NASA and the American Institute in Taiwan (AIT) for Coordination Regarding Normal Operations and Special Uplink Operations for the FORMOSAT-3 Satellite System   | Project-Specific Agreement (PSA)        | Amendment: This Agreement (and the associated Coordination Arrangement) provides a framework to coordinate the operation of the FORMOSAT-3 Satellite (owned and operated by the National Space Organization (NSPO) of Taiwan) to prevent unacceptable interference to NASA's Earth science missions, including: FAST, GALEX, HESSI, ICESAT, SAMPEX, SWAS, TIMED, TRACE, and GLORY. The Agreement and Coordination Arrangement specify the parameters for uplink and downlink transmissions during normal operation of the FORMOSAT-3 satellite, and specifies pre-coordination required prior to special uplink operations required to upload Global Positioning System data. This activity is implemented by: (1) The Agreement between NASA and the American Institute in Taiwan (AIT), which is the U.S. liaison | 1/12/2016  | 6/30/2025  |
| 175 | Goddard Space Flight Center (GSFC) | Instituto Superior Politecnico da Tundavala (ISPT)  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and partner will cooperate on the AERONET program. NASA will provide equipment on loan to the Instituto Superior Politecnico da Tundavala (ISPT). ISPT will host and maintain the equipment, and contribute to the AERONET database.   | 2/5/2016   | 2/4/2026   |
| 176 | Headquarters (HQ)                  | Japan Aerospace Exploration Agency (JAXA)   | Reimbursable Space Act Agreement Between NASA and the Japan Aerospace Exploration Agency (JAXA) for International Space Station (ISS) Crew Support Services   | Project-Specific Agreement (PSA)        | Reimbursable Agreement for NASA to provide crew support services to JAXA. Services include training support, medical support, Star City support, and launch and landing support.  | 3/23/2016  | 12/31/2024 |
| 177 | Goddard Space Flight Center (GSFC) | St. Petersburg State University (Russia)  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and St. Petersburg State University (SPSU-Russia) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at SPSU. SPSU has their own instrument, and NASA will provide calibration on that instrument.   | 3/29/2016  | 12/31/2024 |
| 178 | Headquarters (HQ)                  | Korea Advanced Institute of Science and Technology (KAIST), Korea Aerospace Research Institute (KARI), Korea Agency for Infrastructure Technology Advancement (KAIA), Korea Astronomy and Space Science Institute | Framework Agreement Between the Government of the United States of America and the Government of the Republic of Korea for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Civil and Peaceful Purposes | Umbrella/Framework Agreement (UMFW)     | Framework Agreement which sets for the terms and conditions for cooperation between the parties in aeronautics and the exploration and use of airspace and outer space for civil and peaceful purposes in areas of common interest.   | 4/27/2016  | 4/27/2027  |
| 179 | Goddard Space Flight Center (GSFC) | Catholic University of Cameroon (CATUC)   | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and Catholic University of Cameroon (CATUC) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at CATUC. CATUC will maintain the NASA-owned instrument, and NASA will provide calibration on that instrument.  | 4/28/2016  | 3/27/2026  |

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| 180 | All NASA Centers                              | United Arab Emirates Space Agency (UAESA)                                     | Implementing Arrangement (IA) Between NASA and the United Arab Emirates Space Agency (UAESA) for Cooperation in the Exploration of Mars  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) between NASA and United Arab Emirates Space Agency (UAESA) for cooperation in the Exploration of Mars.  | 6/12/2016  | 12/31/2024 |
| 181 | Headquarters (HQ)                             | United Arab Emirates Space Agency (UAESA)                                     | Framework Agreement Between the Government of the United States of America and the Government of the United Arab Emirates for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes | Umbrella/Framework Agreement (UM/FW)    | Framework Agreement which sets the obligations, terms and conditions for cooperation between the Parties in aeronautics and the exploration and use of airspace and outer space for peaceful purposes in areas of common interest.  | 6/12/2016  | 6/12/2026  |
| 182 | Headquarters (HQ)                             | Ministry of Education and Economic Development of Bermuda                     | Extension 1: Agreement Between NASA and the Ministry of Transport of the Government of Bermuda for Space Flight Temporary Mobile Tracking Station  | Project-Specific Agreement (PSA)        | Extension 1: Agreement between NASA and the Ministry of Transport of the Government of Bermuda for a Space Flight Temporary Mobile Tracking Station.  | 6/30/2016  | 6/30/2026  |
| 183 | Goddard Space Flight Center (GSFC)            | Dibrugarh University  | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | Cooperative research on aerosols using sun photometers integrated into a global network. Dibrugarh University will host a NASA-owned instrument.  | 9/7/2016   | 9/6/2026   |
| 184 | Goddard Space Flight Center (GSFC)            | Universidad de San Francisco de Quito (USFQ)                                  | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | NASA and Universidad de San Francisco de Quito (USFQ) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at USFQ. USFQ will maintain the NASA-owned instrument, and NASA will provide calibration on that instrument.   | 9/16/2016  | 9/16/2026  |
| 185 | George C. Marshall Space Flight Center (MSFC) | Swedish Institute of Space Physics (IRF), Swedish National Space Board (SNSB) | Jupiter Icy Moons Explorer (JUICE) Mission - Particle Environments Package (PEP)   | Implementing Arrangement/Agreement (IA) | NASA and the Swedish National Space Board (SNSB) will collaborate on the development of the Particle Environment Package (PEP) of the Jupiter Icy-Moons Explorer (JUICE) mission. PEP is a plasma package with six sensors to characterize the plasma environment in the Jovian system. PEP shall measure positive and negative ions, electrons, exospheric neutral gas, thermal plasma, and energetic neutral atoms (ENAs) in the energy range from 0.001 eV to 1 MeV. PEP shall combine remote global imaging via ENAs with in-situ measurements, to address all scientific objectives of the JUICE mission relevant to particle measurements. Their work on the JUICE mission will be governed by the terms and conditions of the Framework Agreement between the Government of the United States of America and the             | 9/20/2016  | 9/20/2034  |
| 186 | Glenn Research Center at Lewis Field (GRC)    | National Centre for Space Studies (CNES)                                      | Amendment 2: Dispositif pur l'Etude de la Croissance et des Liquides Critiques (DECLIC)  | Project-Specific Agreement (PSA)        | Amendment 2: A second amendment was added to the agreement. This amendment also details the refurbishment and re-launch of the DECLIC hardware and extends the Agreement to December 31, 2024, to enable the completion of the ISS operations for the HTI-R insert which is currently on-orbit and the launch and ISS operations of the DSI-R and ALI-R inserts. The original agreement was amended to include collaboration on upgraded versions of the following three DECLIC inserts: the High Temperature Insert-Reflight (HTI-R), the Directional Solidification Insert-Reflight (DSI-R), and the Alice-Like Insert-Reflight (ALI-R). In the original agreement, NASA agreed to provide a launch capability to, and on-orbit accommodations for the DECLIC hardware on the ISS. In addition, CNES received a 12-month on-orbit | 9/21/2016  | 12/31/2024 |
| 187 | Headquarters (HQ)                             | Government of the Kingdom of Norway   | Amendment and Extension 3: Agreement Between the United States of America and the Kingdom of Norway for Cooperation in the Civil Uses of Outer Space   | Umbrella/Framework Agreement (UM/FW)    | Amendment and Extension 3: The U.S. and the Kingdom of Norway, pursuant to Article 11 of the Agreement signed 10/20/2000 and 11/14/2001, and extended for 10 years by an agreement signed on 10/23/2006, agree to extend the duration of the Agreement for another 10 years, thus extending the expiration date until 11/14/2026. The Parties also agree, pursuant to Article 10 of the Agreement to amend the Agreement by replacing Article 7 in its entirety with new language. 2nd Extension: U.S. Geological Survey (USGS) added as a U.S. Implementing Agency pursuant to Article 2. 1st Extension: This is an extension of the umbrella/framework agreement between the US and Norway for cooperation in the civil uses of outer space. The parties cooperation will be in sounding rocket activity, Space science, Earth    | 9/30/2016  | 11/14/2026 |
| 188 | Goddard Space Flight Center (GSFC)            | Lake Chad Basin Commission (LCBC)   | Aerosol Robotic Network (AERONET) and Micro Pulse Lidar Network (MPL/NET)  | Project-Specific Agreement (PSA)        | NASA will provide a Sun Photometer and/or Lidar to the partner; the Partner will tend the instrument(s) and ensure data is uploaded to the global databases.  | 10/5/2016  | 10/4/2026  |
| 189 | Headquarters (HQ)                             | Canadian Space Agency (CSA)   | Implementing Arrangement (IA) on Surface Water Ocean Topography (SWOT) Phase C-F   | Implementing Arrangement/Agreement (IA) | Canadian Space Agency (CSA) to provide Extended Interaction Klystrons (EIKs) as part of the NASA KaRIn instrument.  | 10/17/2016 | 10/20/2030 |

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| 190 | Headquarters (HQ), Jet Propulsion Laboratory (JPL)                  | The Ministry of Economy and Competitiveness of Spain, The Ministry of Industry Energy and Tourism of Spain, The Center for the Development of Industrial Technology, The National Institute for Aerospace | Memorandum of Understanding (MOU): Mars 2020 Mars Environmental Dynamics Analyzer (MEDA) Memorandum of Understanding (MOU)  | Project-Specific Agreement (PSA)        | Memorandum of Understanding (MOU) between NASA and the Ministry of Economy and Competitiveness of Spain, the Ministry of Industry Energy and Tourism of Spain, the Center for the Development of Industrial Technology, and the National Institute for Aerospace Technology 'Esteban Terradas' of Spain; Concerning the Mars Environmental Dynamics Analyzer Instrument for the Mars 2020 Mission.   | 10/25/2016 | 6/30/2024  |
| 191 | Goddard Space Flight Center (GSFC)                                  | Universidad Popular de Cesar (UPC)  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and Universidad Popular del Cesar (UPC) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at UPC. UPC will maintain the NASA-owned instrument, and NASA will provide calibration on that instrument.   | 11/30/2016 | 11/29/2026 |
| 192 | Jet Propulsion Laboratory (JPL)                                     | European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), European Space Agency (ESA)   | Sentinel-6/Jason-CS   | Project-Specific Agreement (PSA)        | Cooperation on development and launch of the Sentinel-6/Jason-CS mission.  | 12/14/2016 | 12/31/2040 |
| 193 | Jet Propulsion Laboratory (JPL)                                     | European Space Agency (ESA)   | Amendment 1: Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the Euclid Mission   | Project-Specific Agreement (PSA)        | Amendment 1: Memorandum of Understanding (MOU) between NASA and ESA to continue cooperation on the ESA-led Euclid astrophysics mission under a MOU that entered into force on January 10, 2013. The amendment covers the management of Euclid science operations and data archives, including the integration of the NASA-provided Science Data Center (SDC-US); the selecting of other NASA-funded collaborators including the U.S. Lead Scientist, the provision and operation of the Euclid NASA Science Center, and the conducting of qualification and evaluation activities for the NISP. MOU covering NASA-ESA cooperation on the ESA-led Euclid astrophysics mission. Covers NASA provision of the Near Infrared Spectrograph and Photometer (NISP) instrument sensor chip system. | 12/20/2016 | 7/1/2025   |
| 194 | Headquarters (HQ), Johnson Space Center (JSC)                       | Korea Aerospace Research Institute (KARI)   | Implementing Arrangement Between NASA and Korea Aerospace Research Institute (KARI) for Cooperation on the Korea Pathfinder Lunar Orbiter (KPLO) Mission                                  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) with NASA/Korea where NASA provides instruments for integration into KARI's lunar orbiter. NASA will also provide mission design and navigation support.   | 12/30/2016 | 12/31/2023 |
| 195 | George C. Marshall Space Flight Center (MSFC)                       | European Space Agency (ESA)   | Jupiter Icy Moons Explorer (JUICE) Mission - UVIS   | Implementing Arrangement/Agreement (IA) | NASA will provide the Ultraviolet Spectrograph (UVS) instrument for the ESA JUICE Mission, as well as ground network support.  | 1/18/2017  | 6/30/2034  |
| 196 | Jet Propulsion Laboratory (JPL)                                     | European Space Agency (ESA)   | Amendment 1: Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the 2016 ExoMars Mission   | Project-Specific Agreement (PSA)        | Amendment 1: Memorandum of Understanding (MOU) to allow NASA to provide aerobraking and Deep Space Network (DSN) support to ESA's ExoMars Trace Gas Orbiter (EM/TGO), while allowing EM/TGO to eventually act as a data relay orbiter for NASA's landed Mars assets.   | 3/1/2017   | 12/31/2023 |
| 197 | Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL) | European Space Agency (ESA)   | Agreement Between the European Space Agency (ESA) and NASA Concerning Network and Operations Cross Support  | Project-Specific Agreement (PSA)        | This agreement provides for a legal framework and the conditions for a mutually beneficial long-term cooperation between NASA and ESA in the areas of network and operations cross support. This includes telemetry data acquisition, tracking, and command. This agreement provides for implementing arrangements to be completed for mission specific activities. This Agreement supersedes and terminates ESA-0239-0, -1, and -2.   | 3/20/2017  | 3/21/2027  |
| 198 | Headquarters (HQ)   | Indian Space Research Organization (ISRO)   | Implementing Arrangement (IA) Between NASA and Indian Space Research Organization (ISRO) for Exchange of Personnel Under the Professional Engineer and Scientist Exchange Program (PESEP) | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) for cooperation on the Professional Engineer and Scientist Exchange Program (PESEP) established by the India-U.S. Civil Space Joint Working Group.   | 4/25/2017  | 4/25/2027  |
| 199 | Goddard Space Flight Center (GSFC)                                  | The University Court of the University of Edinburgh   | Mini-LHR GreenNet with the University of Edinburgh  | Project-Specific Agreement (PSA)        | NASA to loan instruments for a University of Edinburgh ground station. The parties will establish one or more mini-LHR stations at mutually agreed sites. University of Edinburgh will host the NASA-owned equipment.  | 4/26/2017  | 4/25/2027  |

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|-----|--|--|--|---|--|------------|-----------|
| 200 | Headquarters (HQ)  | The Republic of Seychelles   | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.   | 6/13/2017  | 8/25/2100 |
| 201 | Ames Research Center (ARC)   | Italian Space Agency (ASI)   | Implementing Arrangement (IA) Between NASA and ASI for Associate Membership in the NASA Solar System Exploration Research Virtual Institute (SSERVI) | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) to enable ASI to join the NASA Solar System Exploration Research Virtual Institute (SSERVI) as an Associate Member. SSERVI is a virtual institute managed by the NASA Ames Research Center with a mission of advancing the field of solar system science as applied to human exploration. NASA and ASI will provide scientific and engineering expertise to enhance and propel the broad objectives of solar system science.   | 6/14/2017  | 6/14/2027 |
| 202 | George C. Marshall Space Flight Center (MSFC),Goddard Space Flight Center (GSFC) | Italian Space Agency (ASI)   | Implementing Arrangement (IA) Between NASA and Agenzia Spaziale Italia (ASI) on the Imaging X-ray Polarimetry Explorer (IXPE) Mission                | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) between NASA and the Italian Space Agency (ASI) cooperating on the Imaging X-ray Polarimetry Explorer (IXPE) Mission; and recalling terms of framework agreement between the Government of the United States of America and the Government of the Italian Republic of for cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, signed March 19, 2013, and entered into force on February 11, 2016. IXPE is a Principal Investigator (PI)-managed, Small-class Explorer (SMEX) NASA Mission led by Dr. Martin C. Weisskopf at MSFC. The IXPE missions main objective is to understand the physics of the X-ray emission produced by neutron stars and black holes. IXPE will address this objective by imaging X-rays from celestial objects onto polarization-sensitive    | 6/20/2017  | 12/1/2026 |
| 203 | Goddard Space Flight Center (GSFC)   | Norwegian Mapping Authority (NMA)  | Reimbursable Space Act Agreement Between NASA and Norwegian Mapping Authority (NMA) Concerning Cooperation on Space Geodesy                          | Project-Specific Agreement (PSA)        | Space Geodesy: Norwegian Mapping Authority (NMA) will reimburse NASA for the installation of a next generation Satellite Laser Ranging (SLR) station in Ny-Alesund, Norway, above the arctic circle. NASA and NMA will cooperate to contribute to the Global Geodetic Observing System.  | 8/7/2017   | 8/6/2027  |
| 204 | Headquarters (HQ)  | World Meteorological Organization Global Atmosphere Watch Programme (WMO/GAW)                | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The Global Learning and Observations to Benefit the Environment (GLOBE) Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.   | 9/25/2017  | 9/25/2100 |
| 205 | George C. Marshall Space Flight Center (MSFC)                                    | Canadian Space Agency (CSA)  | Extension/Amendment 1: Implementing Arrangement (IA) Between NASA and Canadian Space Agency (CSA) on the Loan of Space Shuttle Equipment             | Implementing Arrangement/Agreement (IA) | Extension/Amendment 1: Implementing Arrangement (IA) Between NASA/CSA to renew and modify the current IA, amending the agreement for 1) the location of the equipment on loan, 2) the new point of contact, and 3) the commencement of activities and duration (Sections 1, 4, 8). Framework Agreement of September 9, 2009, governs this Implementing Arrangement between NASA/CSA on the loan of Space Shuttle Equipment.  | 10/2/2017  | 10/2/2027 |
| 206 | Goddard Space Flight Center (GSFC)   | International Center for Integrated Mountain Development (ICIMOD)                            | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | The scientific goals of National Aeronautics and Space Administration (NASA) and the International Center for Integrated Mountain Development (ICIMOD) is to gain a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To accomplish this objective, NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites. In support of this cooperation | 10/3/2017  | 10/3/2027 |
| 207 | Headquarters (HQ),Jet Propulsion Laboratory (JPL)                                | Italian Space Agency (ASI)   | Implementing Arrangement (IA): NASA-Italian Space Agency (ASI) Mars 2020   | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) under US-Italy Framework. ASI contribution of a laser retro-reflector array to the NASA Mars 2020 rover.   | 10/9/2017  | 6/30/2024 |
| 208 | Jet Propulsion Laboratory (JPL)  | Commonwealth Scientific and Industrial Research Organization (CSIRO),Government of Australia | Amendment 7: Space Vehicle Tracking and Communications Facilities in Australia   | Project-Specific Agreement (PSA)        | Amendment 7: The 7th Amendment to the Government-to-Government Agreement, signed in October 2017 and formally ratified by Australian Parliament in Feb 2018, extending the agreement until Feb 26, 2043. The 6th Amendment to the Government-to-Government Agreement, signed on March 27, 2014, retroactive to Feb 26, 2012, and extending until Feb 26, 2018. The 5th Amendment to the Government-to-Government Agreement, signed on January 11, 2012, and extending until Feb 26, 2014. The 4th Amendment to the Government-to-Government Agreement, signed on March 17, 2010, retroactive to Feb 26, 2010, and extending until Feb 26, 2012. The 3rd Amendment to the Government to Government Agreement, did Oct 26, 2000, retroactive to Feb 26, 2000, amending the Agreement significantly,                                | 10/17/2017 | 2/26/2043 |
| 209 | Headquarters (HQ),Jet Propulsion Laboratory (JPL)                                | European Space Agency (ESA)  | NASA-European Space Agency (ESA) ExoMars 2020 Letter of Agreement  | Project-Specific Agreement (PSA)        | NASA and ESA cooperation on ExoMars 2020 for exchange of technical expertise, scientific collaboration, and deep space network coordination.   | 10/18/2017 | 12/1/2024 |

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| 210 | Langley Research Center (LaRC)                                      | University of Leeds   | Reimbursable Space Act Agreement Between NASA and the University of Leeds for the Design, Construction, and Loan of a Diode Laser Hygrometer   | Project-Specific Agreement (PSA) | Reimbursable Agreement where NASA will design, build, and loan a Diode Laser Hygrometer to the University of Leeds on a reimbursable basis.   | 11/11/2017 | 11/11/2027 |
| 211 | Goddard Space Flight Center (GSFC)                                  | National Agency for Hydrometeorology and Environmental Monitoring | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA) | To extend the term of the existing AERONET agreement to establish sun photometer station in Mongolia.   | 11/22/2017 | 3/31/2027  |
| 212 | Goddard Space Flight Center (GSFC)                                  | The American Institute in Taiwan                                  | Extension 1: Micro-Pulse Lidar Network (MPLNET) and the Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA) | Extension 1: American Institute in Taiwan (AIT)/Taiperi Economic and Cultural Representative Office (TECRO) Agreement to establish lidar and/or sun photometer stations in Taiwan. Also included is the extension of the NASA/AIT Designated Representative Agreement.  | 11/28/2017 | 12/31/2027 |
| 213 | Headquarters (HQ)   | Ministry of Environment   | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA) | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.  | 1/30/2018  | 12/21/2500 |
| 214 | George C. Marshall Space Flight Center (MSFC)                       | University of Twente  | SERVIR-ITC Capacity Building Cooperation   | Project-Specific Agreement (PSA) | NASA SERVIR Program and the University of Twente Faculty of Geo-information and Science and Earth Observation (ITC) will cooperate in Earth science capacity building. ITC and SERVIR will jointly develop training and pair ITC faculty with SERVIR scientists to conduct research in food security and agriculture; water resources and water-related disasters; land cover and land use change; and weather and climate in SERVIR regions.   | 2/12/2018  | 2/11/2028  |
| 215 | Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL) | Japan Aerospace Exploration Agency (JAXA)                         | Earth Observation Satellite Data Exchange  | Project-Specific Agreement (PSA) | JAXA will provide non-public data to NASA Principle Investigators who responded to JAXA announcements of opportunity.   | 2/26/2018  | 2/26/2028  |
| 216 | Headquarters (HQ)   | Nagoya University of Japan  | NASA-University of Nagoya Agreement for the Imaging X-ray Polarimetry Explore (IXPE) Mission   | Project-Specific Agreement (PSA) | Nagoya university hardware contribution to the IXPE mission.  | 2/27/2018  | 12/31/2026 |
| 217 | Goddard Space Flight Center (GSFC)                                  | Manila Observatory of the Philippines                             | Agreement Between NASA and the Manila Observatory of the Philippines for Cooperation on the Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA) | Agreement between NASA and the Manila Observatory of the Philippines for Cooperation in the Aerosol Robotic Network (AERONET). Originally signed January 14, 2009, and expired January 30, 2018; then extended to January 30, 2028. NASAs scientific goals include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality.  | 3/1/2018   | 1/30/2028  |
| 218 | Ames Research Center (ARC)  | The Office of the Crown Prince of the Hashemite Kingdom of Jordan | Reimbursable Space Act Agreement Between NASA and the Crown Prince Foundation (CPF) of the Hashemite Kingdom of Jordan for Participation in the NASA International Internship Project (NASA I <sup>2</sup> ) | Project-Specific Agreement (PSA) | This reimbursable Agreement enables Jordan's participation in NASA I <sup>2</sup> . NASA will provide a number of evolving internship opportunities that will be offered three times during the calendar year: Spring, Summer, and Fall (referred to as a 'Term'), depending on the Agency's current work and mentor availability. The Crown Prince Foundation (CPF) may provide NASA with a range of 1-10 student nominations per Term, from which NASA will select an intern for the research or project opportunities identified in NASA's online internship application system. | 3/4/2018   | 12/31/2023 |
| 219 | Goddard Space Flight Center (GSFC)                                  | Japan Aerospace Exploration Agency (JAXA)                         | Space Geodesy: Collaborative Research on the Quasi-Zenith Satellite System (QZSS)  | Project-Specific Agreement (PSA) | To cooperate on the use of a Global Navigation Satellite Systems (GNSS) sensor station to provide timely and accurate Earth orientation parameters in the determination of GNSS orbits and assess the value of GNSS and Very Long Baseline Interferometry (VLBI) monitoring stations in the accuracy of all GNSS systems. Both Parties support the collaborative measurement of Earth Orientation.  | 3/14/2018  | 9/30/2023  |

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| 220 | Goddard Space Flight Center (GSFC)  | Canadian Space Agency (CSA)                  | NASA-Canadian Space Agency (CSA) X-ray Astronomy Recovery Mission (XARM) Implementing Arrangement (IA)   | Implementing Arrangement/Agreement (IA) | Canada will provide calibration testing for the X-ray Astronomy Recovery Mission (XARM) Resolve instrument. NASA and Canadian scientists on the NASA science team.  | 3/28/2018 | 12/31/2025 |
| 221 | Goddard Space Flight Center (GSFC)  | Institute of Space Technology (IST)          | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | to establish a sun photometer station in Pakistan to improve the understanding of the properties and concentrations of aerosols   | 4/6/2018  | 8/15/2100  |
| 222 | Johnson Space Center (JSC)  | German Aerospace Center (DLR)                | Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) Acting for DLR Institute of Aerospace Medicine for Cooperation on Investigations Utilizing the German Aerospace Center's :envihab Facility  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) Agreement between NASA and DLR to conduct collaborative human research investigations and cooperation utilizing DLR's envihab facility.   | 4/11/2018 | 12/31/2025 |
| 223 | Johnson Space Center (JSC)  | Israel Space Agency (ISA)                    | Implementing Arrangement (IA) Between NASA and Israel Space Agency (ISA) for Cooperation on the Matryoshka AstroRad Radiation Experiment (MARE) on NASA's Exploration Mission-1  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA): On its first flight (Exploration Mission-1 or 'EM-1'), NASA will demonstrate its new Space Launch System rocket's heavy-lift capability and send an un-crewed Orion spacecraft into deep space. The agency will also take advantage of additional available mass and space to provide the rare opportunity to fly secondary payloads in the Orion Crew Module (CM) to conduct experiments beyond low-Earth orbit. MARE is one of the secondary payloads that will be installed in the Orion CM that will launch on EM-1. MARE will provide tissue equivalent assessment of the radiation environment that future crews may be exposed to and demonstrate radiation shielding effectiveness of a crew Radiation Shield Vest (RSV). The experiment includes two (2) tissue equivalent torsos, one RSV.           | 4/17/2018 | 4/17/2026  |
| 224 | Goddard Space Flight Center (GSFC)  | National Centre of Meteorology Seismology    | Amendment and Extension 1: Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | Amendment and Extension 1: NASA and the National Centre of Meteorology and Seismology (NCMS) will cooperate on the AERONET program. NASA will provide equipment on loan which NCMS will host at a mutually agreed location.   | 5/16/2018 | 3/31/2027  |
| 225 | Marshall Space Flight Center (MSFC)   | Japan Aerospace Exploration Agency (JAXA)    | Solar Physics Satellite (SOLAR-B) Project/Hinode   | Project-Specific Agreement (PSA)        | SOLAR-B satellite is a JAXA-led mission in sun-synchronous orbit to study the solar photosphere corona, and transition region. JAXA is responsible for the overall spacecraft and launch, and NASA provided the Focal Plane Package, the stand-alone X-Ray Telescope, and major optical components for the EUV Imaging Spectrometer.  | 6/5/2018  | 6/10/2025  |
| 226 | Goddard Space Flight Center (GSFC)  | Indian Institute of Technology (IIT), Kanpur | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | NASA and the Indian Institute of Technology (IIT) Kanpur will extend cooperation dating from 2001 on an AERONET sunphotometer station located at IIT Kanpur. NASA provides the equipment, and IIT Kanpur provides the site.   | 6/6/2018  | 1/30/2100  |
| 227 | Johnson Space Center (JSC)  | German Aerospace Center (DLR)                | Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Matryoshka Astrorad Radiation Experiment (MARE) On NASA's Exploration Mission-1  | Implementing Arrangement/Agreement (IA) | Under the Implementing Arrangement (IA), on the first flight of Exploration Mission-1 ("EM-1,") NASA will demonstrate its new Space Launch System rocket's heavy-lift capability and send an un-crewed Orion spacecraft into deep space. The agency will also take advantage of additional available mass and space to provide the rare opportunity to fly secondary payloads in the Orion Crew Module (CM) to conduct experiments beyond low-Earth orbit. MARE is one of the secondary payloads that will be installed in the Orion CM that will launch on EM-1. MARE will provide tissue equivalent assessment of the radiation environment that future crews may be exposed to and demonstrate radiation shielding effectiveness of a crew Radiation Shield Vest (RSV). The experiment includes two (2) tissue equivalent torsos, one RSV. | 6/19/2018 | 6/19/2026  |
| 228 | Glenn Research Center at Lewis Field (GRC),Headquarters (HQ),Johnson Space Center (JSC) | European Space Agency (ESA)                  | Annex 2: Implementing Arrangement (IA) Between NASA and the European Space Agency (ESA) Concerning the Provision by ESA of Elements for NASA's Multi-Purpose Crew Vehicle as a Contribution to the Offset of ESA's Responsibility for International Space Station Common System Operations Costs and to Compensate NASA for Transportation Costs and | Implementing Arrangement/Agreement (IA) | Annex 2 covers EM-2 Payment and Technical Discussions for EM-3 and beyond. Barter arrangement. ESA will provide the Service Module (SM) for the Exploration Mission - 1 Multi-Purpose Crew Vehicle (MPCV) as contribution to the offset of ESA's Responsibility for International Space Station common system operations costs and to compensate NASA for transportation costs and other supporting services including TDRSS support and an astronaut ISS increment flight opportunity. Also includes an Annex which lays the groundwork for ESA to also provide the Exploration Mission-2 Service Module and assistance for the Exploration Mission-3 activities.  | 6/22/2018 | 12/31/2024 |
| 229 | Glenn Research Center at Lewis Field (GRC),Headquarters (HQ),Johnson Space Center (JSC) | European Space Agency (ESA)                  | Annex 2: Implementing Arrangement (IA) Between NASA and the European Space Agency (ESA) Concerning the Provision by ESA of Elements for NASA's Multi-Purpose Crew Vehicle as a Contribution to the Offset of ESA's Responsibility for International Space Station Common System Operations Costs and to Compensate NASA for Transportation Costs and | Implementing Arrangement/Agreement (IA) | Annex 2 covers EM-2 Payment and Technical Discussions for EM-3 and beyond. Barter arrangement. ESA will provide the Service Module (SM) for the Exploration Mission - 1 Multi-Purpose Crew Vehicle (MPCV) as contribution to the offset of ESA's Responsibility for International Space Station common system operations costs and to compensate NASA for transportation costs and other supporting services including TDRSS support and an astronaut ISS increment flight opportunity. Also includes an Annex which lays the groundwork for ESA to also provide the Exploration Mission-2 Service Module and assistance for the Exploration Mission-3 activities. Annex 2 is connected with ESA-0339-0   | 6/22/2018 | 12/31/2024 |

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|-----|------------------------------------|--|--|----------------------------------|--|-----------|------------|
| 230 | Headquarters (HQ)                  | Ministry of Basic Education of the Republic of Botswana          | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA) | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.   | 6/26/2018 | 6/26/2100  |
| 231 | Goddard Space Flight Center (GSFC) | National Institute of Water and Atmospheric Research Ltd. (NIWA) | Agreement Between NASA and the National Institute of Water and Atmospheric Research of New Zealand for Cooperation in Lidar Atmospheric Measurement Comparisons  | Project-Specific Agreement (PSA) | Cooperation in airborne science in the framework of the International Network for the Detection of Atmospheric Composition Change Validation Campaign (NDACC).   | 6/29/2018 | 12/31/2028 |
| 232 | Ames Research Center (ARC)         | Ministry of Business, Innovation and Employment (MBIE)           | Reimbursable Space Act Agreement Between NASA and the Ministry of Business, Innovation and Employment of New Zealand for Participation in the NASA International Internship Project (NASA I <sup>2</sup> ) | Project-Specific Agreement (PSA) | The Ministry of Business, Innovation and Employment (MBIE) will participate in the NASA International Internship (NASA I <sup>2</sup> ) Project.   | 7/3/2018  | 12/31/2023 |
| 233 | Goddard Space Flight Center (GSFC) | Universite de la Reunion   | Network for the Detection of Atmospheric Chemical Change (NDACC)   | Project-Specific Agreement (PSA) | NASA will use its mobile validation instrumentation at the Maito facility on Reunion Island to participate in a Network for the Detection of Atmospheric Chemical Change (NDACC) validation campaign with the Universite de la Reunion ozone profiling instruments.  | 7/4/2018  | 1/31/2028  |
| 234 | Goddard Space Flight Center (GSFC) | Eduardo Mondlane University                                      | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA) | to establish sun photometer stations at mutually agreed sites in Mozambique to measure vital aerosol optical properties and water vapor  | 7/24/2018 | 12/31/2025 |
| 235 | Ames Research Center (ARC)         | Agencia Espacial Mexicana (AEM)                                  | Amendment 1: Reimbursable Space Act Agreement Between NASA and the Agencia Espacial Mexicana (AEM) for Participation in the NASA International Internship Program (NASA I <sup>2</sup> )                   | Project-Specific Agreement (PSA) | Amendment 1: This amendment to the agreement enables Agencia Espacial Mexicana's (AEM) continued participation in the NASA International Internship Project (NASA I <sup>2</sup> ) by another 5 years. It is designed to provide a collaborative environment where U.S. interns or fellows (university undergraduate & students) (university graduate students) can interact and work alongside international peers on research opportunities. Original: This agreement enables AEM's participation in the NASA International Internship Program (NASA I <sup>2</sup> ), designed to provide a collaborative environment where U.S. interns (university undergraduate students) or fellows (university graduate students) can interact and work alongside international peers on research opportunities. | 7/30/2018 | 12/31/2023 |
| 236 | Ames Research Center (ARC)         | Brazilian Space Agency (AEB)                                     | Reimbursable Space Act Agreement Between NASA and the Brazilian Space Agency (AEB) for Participation in NASA International Internship Project (NASA I <sup>2</sup> )                                       | Project-Specific Agreement (PSA) | This Reimbursable Space Act Agreement will facilitate the Brazilian Space Agency's (AEB) participation in the NASA International Internship Project (NASA I <sup>2</sup> ) designed to provide a collaborative environment where U.S. interns or fellows can interact and work alongside with international peers on science or engineering research opportunities.  | 8/13/2018 | 12/31/2023 |
| 237 | Headquarters (HQ)                  | American Institute in Taiwan (AIT)                               | Amendment: Global Learning and Observations to Benefit the Environment (GLOBE)   | Project-Specific Agreement (PSA) | Amendment: Agreement between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the U.S. for Cooperation in the GLOBE Program. Intending to increase the awareness of students throughout the world about the global environment; seeking to contribute to increased scientific understanding of the Earth; and Desiring to support improved student achievement in science and mathematics.   | 8/13/2018 | 8/13/2100  |
| 238 | Johnson Space Center (JSC)         | Freie Universitat Berlin   | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Timm John of Freie Universitat Berlin in Berlin, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 8/14/2018 | 8/14/2023  |
| 239 | Johnson Space Center (JSC)         | Hiroshima University   | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Dr. Hikaru Yabuta of the Hiroshima University in Hiroshima, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 8/14/2018 | 8/14/2023  |

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| 240 | Johnson Space Center (JSC)  | University of Tokyo  | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Professor Takafumi Niihara of the School of Engineering, The University of Tokyo, in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator.  | 8/14/2018 | 8/14/2023  |
| 241 | Goddard Space Flight Center (GSFC)                                  | Korea Astronomy and Space Science Institute (KASI)                               | Implementing Arrangement (IA) for Cooperation on the Korea Astronomy and Space Science Institute (KASI) Geomagnetic Storm Forecast Model (KSFM)  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) for cooperation on the development and installation of Korea Astronomy and Space Science Institute (KASI) geomagnetic storm forecasting model at the GSFC Community Coordinated Modeling Center (CCMC).  | 8/14/2018 | 8/14/2023  |
| 242 | George C. Marshall Space Flight Center (MSFC)                       | Finnish Meteorological Institute (FMI)   | Amendment and Extension 1: Global Precipitation Measurement Long-Term Experiment at the Lapland Unified Measurement Site   | Project-Specific Agreement (PSA)        | Amendment and Extension 1: NASA and the Finnish Meteorological Institute (FMI) will conduct a long-term measurement experiment at the University of Helsinki Hyytiala Station for Measuring Ecosystem - Atmosphere Relations (SMEAR)-II station.   | 8/16/2018 | 8/31/2023  |
| 243 | Ames Research Center (ARC)  | Norwegian Space Centre (NSC)   | Reimbursable Space Act Agreement Between NASA and the Norwegian Space Center for Participation in the NASA International Internship Project (NASA I <sup>2</sup> )   | Project-Specific Agreement (PSA)        | This Reimbursable Space Act Agreement will be for the purpose of facilitating the Norwegian Space Center's (NSC) participation in the NASA International Internship Project (NASA I <sup>2</sup> ) which facilitates international collaboration through education and shared experiences in space exploration, science, and aeronautics. Up to a max of 30 Norwegian students may be nominated for competitive internships at NASA field centers in a calendar year. NASA mentors make the final selection of interns.  | 8/30/2018 | 12/31/2023 |
| 244 | Ames Research Center (ARC)  | National Institute of Higher Education, Research, Science & Technology (NIHERST) | Amendment and Extension 1 of Reimbursable Space Act Agreement Between the National Institute of Higher Education Research, Science & Technology (NIHERST) and NASA for Participation in the NASA International Internship Program (NASA I <sup>2</sup> ) | Project-Specific Agreement (PSA)        | From the Office of STEM Engagement. Amendment and Extension 1: This amendment and extension continues cooperation in NASA I <sup>2</sup> until Dec. 31, 2023. Original: This agreement enables NIHERST's participation in the NASA I <sup>2</sup> Program, designed to provide a collaborative environment where U.S. interns (university undergraduate students) can interact and work alongside international peers on research opportunities.   | 9/3/2018  | 12/31/2023 |
| 245 | Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL) | South African Radio Astronomical Observatory (SARAO)                             | Space Geodesy: Hartebeesthoek Radio Astronomy Observatory (HartRAO)  | Project-Specific Agreement (PSA)        | Agreement between the National Aeronautics and Space Administration (NASA) and the South African Radio Astronomy Observatory (SARAO) concerning Space Geodetic Research using the Global Navigation Satellite System (GNSS) technique. This agreement supersedes a previous agreement with the same organization, then the Hartebeesthoek Radio Astronom Observatory. This agreement establishes one or more permanent GPS ground stations, with the first agreed-upon station to be located at Hartebeesthoek.  | 9/12/2018 | 9/12/2028  |
| 246 | Kennedy Space Center (KSC)  | University of Zurich (UZH)   | Nonreimbursable Agreement Between NASA and the University of Zurich to Enable Cooperation on Biological Research Activities  | Project-Specific Agreement (PSA)        | NASA and the University of Zurich (UZH) have identified a mutual interest in cooperating on multiple biological research activities, including the terrestrial aspects of research utilizing various platforms such as ground-based micro-gravity simulators, parabolic and suborbital flight campaigns, sounding rockets, and the International Space Station (ISS). In particular, NASA and UZH desire to provide support to each other's investigations and work together to develop and propose new investigations. The current investigations involve studying the epigenetic control of gene expression in altered gravity. UZH has three experiments in this area, one to be conducted on ISS, one on a sounding rocket in Sweden in summer 2018, and last to be conducted on parabolic flights in Switzerland in summer 2018. NASA is also | 9/14/2018 | 9/30/2023  |
| 247 | Johnson Space Center (JSC)  | University of Munster  | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Gregory Brennecke of the University of Munster in Munster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 9/18/2018 | 9/18/2023  |
| 248 | Goddard Space Flight Center (GSFC)                                  | University of Botswana - Okavango Research Institute (UB-ORI)                    | Aerosol Robotic Network (AERONET) with the University of Botswana - Okavango Research Institute (UB-ORI)   | Project-Specific Agreement (PSA)        | NASA's scientific goals include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of Sun photometers in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides necessary science measurements as well as being essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.   | 9/19/2018 | 9/19/2028  |
| 249 | Johnson Space Center (JSC)  | University of Lille 1  | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Hugues Leroux of Unite Materiaux et Transformations, Universite de Lille in Villeneuve d'Ascq, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 9/25/2018 | 9/25/2023  |

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| 250 | Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL) | Nigerian National Space Research and Development Agency (NASDRA)     | Extension: Space Geodesy: Extension of LOA Between NASA and the Nigerian National Space Research and Development Agency (NASDRA) for Cooperation on Geo-Hazards Research   | Project-Specific Agreement (PSA)        | Extension: NASA responsibilities include long term loan of one or more GPS receivers, antennas, computers, and associated equipment, training for use of NASA provide equipment and software, data analysis support. NASDRA responsibilities include - logistical support, personnel, and support data analysis.   | 9/25/2018  | 9/25/2028  |
| 251 | Johnson Space Center (JSC)  | Tohoku University  | International Stardust Samples Loan Agreement  | Project-Specific Agreement (PSA)        | Tomoki Nakamura of Tohoku University in Sendai, Japan, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).  | 9/28/2018  | 9/28/2023  |
| 252 | Johnson Space Center (JSC)  | University of Manchester   | International Stardust Samples Loan Agreement  | Project-Specific Agreement (PSA)        | Ian C. Lyon of The University of Manchester in Manchester, U.K., proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).  | 9/28/2018  | 9/28/2023  |
| 253 | Goddard Space Flight Center (GSFC)                                  | Korea Astronomy and Space Science Institute (KASI)                   | Implementing Arrangement (IA) for Cooperation on the Balloon-Borne Investigation of Temperature and Speed of Electrons in the Corona (BITSE)   | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) for cooperation on development and execution of technology demonstration balloon flight for a compact coronagraph instrument. Projected 2019 launch.   | 9/28/2018  | 12/31/2024 |
| 254 | Headquarters (HQ)   | United Arab Emirates Space Agency (UAESA)                            | Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the United Arab Emirates Space Agency for Cooperation in Human Spaceflight  | Implementing Arrangement/Agreement (IA) | Identify areas of interest within human space flight, including robotics and human spaceflight activities, utilization of ISS and Gateway, field studies, ground based research, and analog studies in various scientific domains such as space biology, physical sciences, and human research, utilizing UAE and NASA facilities such as the UAE Mars Science City and the NASA Human Exploration Research Analog; STEM; training of crew, and the possibility of an Emirati as a member of the ISS crew. Contribute to Mars Science City requirements.   | 10/1/2018  | 9/30/2028  |
| 255 | Goddard Space Flight Center (GSFC)                                  | Japan Aerospace Exploration Agency (JAXA)                            | X-Ray Imaging and Spectroscopy Mission (XRISM)   | Project-Specific Agreement (PSA)        | NASA will provide a key instrument and mission management expertise to this JAXA-led mission.  | 10/2/2018  | 10/2/2029  |
| 256 | Goddard Space Flight Center (GSFC)                                  | Institute of Oceanology, Polish Academy of Sciences (PAS)            | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | To establish a sun photometer station to improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on global and regional scales.   | 10/8/2018  | 10/8/2028  |
| 257 | Goddard Space Flight Center (GSFC)                                  | University of the Republic (Uruguay)                                 | NASA UDELAR AERONET  | Project-Specific Agreement (PSA)        | NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.  | 10/9/2018  | 10/9/2028  |
| 258 | Jet Propulsion Laboratory (JPL)                                     | Commonwealth Scientific and Industrial Research Organization (CSIRO) | Cooperating Agency Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Commonwealth Scientific and Industrial Research Organization of the Commonwealth of Australia for the Management and Operations of Space Vehicle Tracking and Communication Facilities in Australia | Implementing Arrangement/Agreement (IA) | Amendment 3: Full update and amendment to the original 1981 Cooperating Agency Arrangement. This Cooperating Agency Arrangement is pursuant to AS-0126-0, Government to Government Agreement, February 26, 1980, as amended, between NASA and CSIRO to implement the cooperative program for establishment, modification, management, operation, maintenance, support, and termination of NASA tracking and communications facilities in Australia. This Cooperating Agency Arrangement has the same period of performance as the Government to Government Agreement, initially February 26, 1990, then extended to February 26, 2000, and February 26, 2010, and then to February 2018; in February 2018, a completely updated version was signed, extending cooperation until February 2043. | 10/11/2018 | 2/26/2043  |
| 259 | Johnson Space Center (JSC)  | Agricultural University of Athens                                    | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Ioannis Baziotis of Agricultural University of Athens in Athens, Greece, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 10/16/2018 | 10/16/2023 |

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| 260 | Johnson Space Center (JSC)  | National Space Centre   | International Lunar Sample Loan Agreement (Lunar Sample Display)  | Project-Specific Agreement (PSA)        | NASA and the National Space Centre in Leicester, England, enter into an agreement for the loan of a lunar sample display under 74255,14 and weighs 67.553 grams. NASA desires to make certain Lunar samples available to the Institution by entering into this Loan Agreement. The Institution proposes to use these Lunar samples to maximize access to lunar samples and provide opportunities for lunar sample viewing.  | 10/23/2018 | 10/23/2023 |
| 261 | Headquarters (HQ)   | German Aerospace Center (DLR)   | Implementing Arrangement between NASA and the German Aerospace Center for Cooperation on the Bose-Einstein Condensate Cold Atom Laboratory (BECCAL)   | Implementing Arrangement/Agreement (IA) | Cooperation on the Bose-Einstein Condensate Cold Atom Laboratory (BECCAL), a multi-user facility designed to study Bose-Einstein Condensation and ultra-cold quantum gases in the pressurized micro-gravity environment on the International Space Station (ISS).   | 10/24/2018 | 12/31/2024 |
| 262 | Jet Propulsion Laboratory (JPL)   | Colombian Geological Survey (CGS) (formerly National Institute for Geology and Mineralogy (INGEOMINAS)) | Memorandum of Understanding (MOU) Between the National Aeronautics and Space Administration and The Colombian Geological Survey (CGS) Concerning Cooperation on Space Geodesy   | Project-Specific Agreement (PSA)        | Memorandum of Understanding (MOU) Agreement (follows on from CO-0004-0) to support the continued operations of established Global Navigation and Satellite System (GNSS) sites, and establishment of new Space Geodesy research sites in Colombia. This Agreement follows on from a previous Agreement with the same institution, formerly known as the National Institute for Geology and Mineralogy.  | 10/24/2018 | 10/24/2028 |
| 263 | Goddard Space Flight Center (GSFC)  | University of the Witwatersrand   | Agreement Between NASA and the University of Witwatersrand, Johannesburg, for Cooperation in the Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | AERONET agreement with the University of Witwatersrand will provide a long term loan basis, one or more sun photometer systems and/or associated equipment for continuous operation at mutually-agreed sites; It will provide utilities, security, and housing for the station(s) at mutually-agreed location(s).   | 11/1/2018  | 10/28/2028 |
| 264 | Johnson Space Center (JSC)  | Institut für Mineralogie, Univ. Munster   | International Cosmic Dust Samples Loan Agreement  | Project-Specific Agreement (PSA)        | Christian Vollmer of the Institute for Mineralogy, University of Muenster, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).  | 11/7/2018  | 11/7/2023  |
| 265 | Johnson Space Center (JSC)  | Institute for Geochemistry & Petrology  | International Cosmic Dust Samples Loan Agreement  | Project-Specific Agreement (PSA)        | Henner Busemann of the Institute for Geochemistry and Petrology in Zurich, Switzerland, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).   | 11/7/2018  | 11/7/2023  |
| 266 | Johnson Space Center (JSC)  | Institute for Geochemistry & Petrology  | International Stardust Samples Loan Agreement   | Project-Specific Agreement (PSA)        | Henner Busemann of the Institute for Geochemistry & Petrology in Zurich, Switzerland, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).  | 11/7/2018  | 11/7/2023  |
| 267 | Goddard Space Flight Center (GSFC)  | Danish Technical University of Denmark  | Agreement Between The National Aeronautics and Space Administration of the United States of America And The Danish Technical University Of Denmark For Cooperation On The Global Ecosystem Dynamics Investigation Project   | Project-Specific Agreement (PSA)        | Collaboration on the Engineering Model hardware of the Star Tracker System for the Global Ecosystem Dynamics Investigation (GEDI) Project.  | 11/19/2018 | 11/19/2023 |
| 268 | Goddard Space Flight Center (GSFC)  | Regional Centre for Mapping of Resources for Development (RCMRD)  | Letter of Agreement Between the National Aeronautics and Space Administration and The Regional Centre for Mapping of Resources for Development (RCMRD) Concerning Cooperation on Space Geodesy  | Project-Specific Agreement (PSA)        | Agreement to support the continued operations of established Global Navigation and Satellite System (GNSS) sites, and establishment of new Space Geodesy research sites in the Regional Centre for Mapping of Resources for Development (RCMRD) region.   | 11/28/2018 | 2/6/2027   |
| 269 | Ames Research Center (ARC), George C. Marshall Space Flight Center (MSFC) | Fundacao Para a Ciencia e a Tecnologia (Foundation for Science and Technology) (FCT)                    | Amendment 1: Reimbursable Space Act Agreement Between NASA and the Foundation for Science and Technology and the Ministry of Science, Technology and Higher Education of Portugal for Participation in the NASA International Internship Program (NASA I <sup>2</sup> ) | Project-Specific Agreement (PSA)        | Amendment 1: This amendment + agreement enables Portugal's participation in the NASA International Internship Project ("NASA I <sup>2</sup> "). NASA I <sup>2</sup> is designed to provide a collaborative environment for U.S. and Portuguese interns to interact and work alongside each other on research opportunities. NASA internship sessions are arranged in three Terms during the calendar year (Spring, Summer, and Fall Terms). NASA Centers: Agency-wide, beginning with ARC, MSFC. This Reimbursable Space Act Agreement enables Portugal's participation in the NASA International Internship Program (hereinafter referred to as "NASA I <sup>2</sup> "). NASA I <sup>2</sup> is designed to provide a collaborative environment for U.S. and Portuguese interns (university undergraduate level students) or fellows (university graduate level students) to interact and work | 12/10/2018 | 12/31/2024 |

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| 270 | Headquarters (HQ)                                  | The National Institute of Environmental Research of the Republic of Korea (NIER) | Memorandum of Understanding Between the National Aeronautics and Space Administration of the United States of America and the National Institute of Environmental Research of the Republic of Korea Concerning Cooperation in Pollution Studies, Calibration, and Validation | Project-Specific Agreement (PSA)        | Agreement to conduct calibration and validation of the NIER GEMS and NASA TEMPO instruments, which include ultraviolet spectrometers that will monitor daily variations in ozone, nitrogen dioxide, sulfur dioxide, formaldehyde, glyoxal, and other key elements of air pollution.   | 12/11/2018 | 12/11/2023 |
| 271 | Goddard Space Flight Center (GSFC)                 | Canadian Space Agency (CSA)  | Extension 1 to the Agreement Between NASA and Canadian Space Agency (CSA) for Cooperation on the James Webb Space Telescope (JWST) Program   | Project-Specific Agreement (PSA)        | Extension 1: This agreement provides for the cooperation between NASA and Canadian Space Agency (CSA) on the James Webb Space Telescope (JWST) mission. CSA will provide the Fine Guidance Sensor while NASA will build the spacecraft. The European Space Agency (ESA) is also a mission partner and will launch the mission. Formerly the Next Generation Space Telescope (NGST). Original: This agreement provides for the cooperation between NASA and Canadian Space Agency (CSA) on the James Webb Space Telescope (JWST) mission. CSA will provide the Fine Guidance Sensor while NASA will build the spacecraft. The European Space Agency (ESA) is also a mission partner and will launch the mission. Formerly the Next Generation Space Telescope (NGST).  | 12/11/2018 | 3/31/2027  |
| 272 | Headquarters (HQ), Jet Propulsion Laboratory (JPL) | European Space Agency (ESA)  | Extension 3: NASA-European Space Agency (ESA) Cooperation on the Mars Express Mission  | Project-Specific Agreement (PSA)        | Extension 3: The terms and conditions by which relevant aspects of the cooperation between NASA and European Space Agency (ESA) shall be conducted within the framework of the Mars Express mission. Primary activities address telecommunications necessary for Mars Express mission operations, navigation and data acquisition. The mission will study Martian atmosphere and the surface of the planet. Extension 2: The terms and conditions by which relevant aspects of the cooperation between NASA and European Space Agency (ESA) shall be conducted within the framework of the Mars Express mission. Primary activities address telecommunications necessary for Mars Express mission operations, navigation and data acquisition. The mission will study Martian atmosphere and the surface of the planet. | 12/17/2018 | 12/31/2023 |
| 273 | Goddard Space Flight Center (GSFC)                 |  | Implementing Arrangement between NASA and Korea Water Resources Corporation (K-Water) for Cooperation on Drought and Flood Analysis and Prediction in Asia/Korea using the NASA Land Information System (LIS)  | Implementing Arrangement/Agreement (IA) | Cooperation on drought and flood analysis with K-Water under the 2016 U.S.-ROK Framework Agreement  | 12/19/2018 | 12/19/2024 |
| 274 | Headquarters (HQ)                                  | Japan Aerospace Exploration Agency (JAXA)  | Amendment and Extension: Cooperation on the Venus Climate Orbiter (VCO)/Planet-C Mission   | Project-Specific Agreement (PSA)        | This is an amendment and extension of the October 5, 2009, agreement for cooperation on the JAXA-led Venus Climate Orbiter (VCO)/Planet-C mission. It provides for the Japanese mission management, while NASA will provide participating scientists, data archiving, navigation support, and deep space network (DSN) support. This agreement is associated with the Joint Understanding with JAXA.  | 12/21/2018 | 12/31/2023 |
| 275 | Johnson Space Center (JSC)                         | Kitakyushu City  | International Lunar Sample Loan Agreement (Lunar Sample Display)   | Project-Specific Agreement (PSA)        | NASA and Kitakyushu City in Kitakyushu, Japan, enter into an agreement for the loan of a lunar sample display under 12006.1 and weighs 176.383 grams. The sample will be picked up from NASA on 13 December 2018 (see JSC Public Affairs specialist e-mail on dates). NASA desires to make certain Lunar samples available to the Institution by entering into this Loan Agreement. The Institution proposes to use these Lunar samples to maximize access to lunar samples and provide opportunities for lunar sample viewing.   | 2/5/2019   | 7/31/2023  |
| 276 | George C. Marshall Space Flight Center (MSFC)      |  | IMPLEMENTING ARRANGEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OF THE UNITED STATES OF AMERICA AND THE ITALIAN SPACE AGENCY OF THE ITALIAN REPUBLIC ON THE LAUNCH OF THE ARGOMOON CUBESAT ON EXPLORATION MISSION 1                                       | Implementing Arrangement/Agreement (IA) | NASA will launch ASI's ArgoMoon CubeSat on EM-1 in exchange for resulting data/images collected by the satellite.   | 2/6/2019   | 2/6/2024   |
| 277 | Goddard Space Flight Center (GSFC)                 | Indian Space Research Organization (ISRO)  | Chandrayaan-2 Laser Retroreflector Array (LRA)   | Implementing Arrangement/Agreement (IA) | NASA will provide a Laser Retroreflector Array (LRA) which will be mounted to the Chandrayaan-2 Vikram Lander for laser ranging to the LRA from orbit with orbiting laser altimeters, such as the Lunar Orbiter Laser Altimeter (LOLA) on the Lunar Reconnaissance Orbiter (LRO).   | 2/11/2019  | 2/11/2025  |
| 278 | Johnson Space Center (JSC)                         | Domaine Universitaire  | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Lydie Bonal (PI) of Domaine Universitaire in St-Martin d'Herès, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 2/19/2019  | 2/19/2024  |
| 279 | Johnson Space Center (JSC)                         | Max Planck Institute for Chemistry   | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Peter Hoppe (PI) of Max Planck Institute for Chemistry in Mainz, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 2/19/2019  | 2/19/2024  |

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| 280 | Johnson Space Center (JSC) | Ibaraki University                                      | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Ko Hashizume (PI) of Ibaraki University in Mito, Ibaraki, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                             | 2/19/2019 | 2/19/2024 |
| 281 | Johnson Space Center (JSC) | Institute for Geochemistry & Petrology                  | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Henner Busemann (PI) of the Institute for Geochemistry & Petrology, in Zurich, Switzerland, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 2/19/2019 | 2/19/2024 |
| 282 | Johnson Space Center (JSC) | University of London                                    | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Ian C. Crawford (PI) of the University of London in London, U.K., proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                            | 2/19/2019 | 2/19/2024 |
| 283 | Johnson Space Center (JSC) | University of Alberta                                   | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Christopher Herd of the University of Alberta, Edmonton, AB, Canada, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                         | 2/27/2019 | 2/27/2024 |
| 284 | Johnson Space Center (JSC) | Institut de Planetologie et d'Astrophysique de Grenoble | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Pierre Beck of the Institut de Planetologie et d'Astrophysique de Grenoble (IPAG) in France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator. | 2/27/2019 | 2/27/2024 |
| 285 | Johnson Space Center (JSC) | University of Munster                                   | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Thorsten Kleine, University of Munster in Munster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                                  | 2/27/2019 | 2/27/2024 |
| 286 | Johnson Space Center (JSC) | Wilhelms-Universitat                                    | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Addi Bischoff of Wilhelms-University of Munster in Munster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                         | 2/27/2019 | 2/27/2024 |
| 287 | Johnson Space Center (JSC) | Universitat Bayreuth                                    | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Audrey Bouvier of the Universitat Bayreuth in 95447 Bayreuth, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                       | 2/27/2019 | 2/27/2024 |
| 288 | Johnson Space Center (JSC) | The Open University                                     | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | S. P. Schwenzer of The Open University in Milton Keynes, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                     | 2/27/2019 | 2/27/2024 |
| 289 | Johnson Space Center (JSC) | the Natural History Museum                              | International Antarctic Meteorite Sample Loan Agreement | Project-Specific Agreement (PSA) | Ashley King of The Natural History Museum in London, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                         | 2/27/2019 | 2/27/2024 |

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| 290 | Goddard Space Flight Center (GSFC)            | Sao Tome and Principe                       | Cooperation in the NASA Pandora Project and Pandora Global Network (PGN)   | Project-Specific Agreement (PSA)        | NASA and Universidade de Sao Tome Principe (USTP) will establish one or more ground based air quality/atmospheric Sun spectrometer systems at mutually agreed site(s). The inclusion of these stations within the Pandora Global Network (PGN) will improve the understanding of the properties and concentrations of select trace gases, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both NASA and USTP to develop research programs using data collected by USTP along with data available from the Pandora Project database located at NASA's Goddard Space Flight Center in Greenbelt, Maryland. | 3/4/2019  | 3/4/2059   |
| 291 | Johnson Space Center (JSC)                    | Hokkaido University (HokuDai)               | International Genesis Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Hisayoshi Yurimoto of Hokkaido University in Sapporo, Japan, proposes to use the Genesis samples to undertake scientific investigations (described in one or more sample requests submitted by the PI to the Genesis Sample Curator at JSC and approved by the Genesis Sample Curator).   | 3/12/2019 | 3/12/2024  |
| 292 | George C. Marshall Space Flight Center (MSFC) | Brazilian Space Agency (AEB)                | Implementing Arrangement (IA) for Cooperation on the Scintillation Prediction Observations Research Task (SPORT) | Implementing Arrangement/Agreement (IA) | Collaborative CubeSat activity with Brazilian Space Agency (AEB) to study ionospheric phenomena. Will launch via CubeSat Launch Initiative.   | 3/18/2019 | 12/31/2025 |
| 293 | Johnson Space Center (JSC)                    | Institut Universitaire Europeen de la Mer   | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Jean-Alix Barrat of the Institut Universitaire Europeen de la Mer in Plouzane Cedex, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 4/12/2019 | 4/12/2024  |
| 294 | Johnson Space Center (JSC)                    | Universite Joseph Fourier a Grenoble        | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Eric Quirico of CNRS/Universite Joseph Fourier in Grenoble, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 4/12/2019 | 4/12/2024  |
| 295 | Johnson Space Center (JSC)                    | University of Tokyo                         | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Takashi Mikouchi of the University of Tokyo in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 4/12/2019 | 4/12/2024  |
| 296 | Johnson Space Center (JSC)                    | National Institute of Polar Research (NIPR) | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Naoya Imae of the National Institute of Polar Research in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 4/12/2019 | 4/12/2024  |
| 297 | Johnson Space Center (JSC)                    | Lund University                             | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Carl Alwmark of Lund University in Lund, Sweden, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 4/12/2019 | 4/12/2024  |
| 298 | Johnson Space Center (JSC)                    | University of Glasgow                       | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Martin Lee of the University of Glasgow in Lilybank Gardens, Glasgow, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 4/12/2019 | 4/12/2024  |
| 299 | Johnson Space Center (JSC)                    | University of Bristol                       | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA)        | Tim Tomkinson of the University of Bristol in Clifton, Bristol, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 4/12/2019 | 4/12/2024  |

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| 300 | Johnson Space Center (JSC)                    | University of Manchester                    | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Katherine Joy of the University of Manchester in Manchester, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 4/12/2019 | 4/12/2024  |
| 301 | Goddard Space Flight Center (GSFC)            | Natural Resources Canada (NRCAN)            | Cooperation in Space Geodesy that Contribute to the Enhancement of the Global Geodetic Observing System (GGOS)   | Project-Specific Agreement (PSA) | NASA/The Department of Natural Resources Canada (NRCAN) will cooperate in scientific programs in Earth observation and the enhancement of the Global Geodetic Observing System (GGOS).  | 4/16/2019 | 4/16/2029  |
| 302 | George C. Marshall Space Flight Center (MSFC) |   | Reimbursable Space Act Agreement Between The National Aeronautics And Space Administration (NASA) And The Italian Space Agency (ASI) For The Dispenser And Integration Services For The ASI ArgoMoon CubeSat On NASA's Exploration Mission-1   | Project-Specific Agreement (PSA) | NASA to provide cubesat dispenser and integration services to ASI on a reimbursable basis for the launch of their ArgoMoon CubeSat on NASA's EM-1 (as a secondary payload on SLS). A separate IA was signed for the flight of the CubeSat.  | 4/18/2019 | 2/6/2024   |
| 303 | Headquarters (HQ)                             | United Nations Environment Programme (UNEP) | Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and the United Nations Environment Programme (UNEP) for Collaboration in the Promotion and Execution of the Global Learning and Observations to Benefit the Environment (GLOBE) Program and UNEP Activities | Project-Specific Agreement (PSA) | The Global Learning and Observation to Benefit the Environment (GLOBE) Program is an international environmental science and education program, established by the United States Government on Earth Day on April 12, 1994, whose efforts led by the National Aeronautics and Space Administration to bring students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community. In parallel to NASA's efforts through GLOBE, UNEP promotes environmental education, awareness, and training to inspire, inform and enable the nations and its citizens | 4/25/2019 | 4/25/2100  |
| 304 | Jet Propulsion Laboratory (JPL)               | King's College London                       | Agreement Between King's College London (KCL) and the National Aeronautics and Space Administration (NASA) of the United States of America Concerning Cooperation on Joint European Airborne Imaging Spectrometer Science Campaign   | Project-Specific Agreement (PSA) | NASA/King's College London will fly remote sensing campaigns at science, calibration, and validation sites throughout Europe with JPL airborne imaging spectrometers using KCL-provided Twin Otter aircraft.  | 4/29/2019 | 4/29/2024  |
| 305 | Goddard Space Flight Center (GSFC)            | National University of San Agustin (UNSA)   | Extension 3: Space Geodesy: Satellite Laser Ranging (SLR)  | Project-Specific Agreement (PSA) | Extension 3: NASA/Universidad Nacional de San Agustin (UNSA) will cooperate on the operation of a satellite laser tracking station at the National University of San Agustin (UNSA) Geophysical Institute at Characato in Arequipa, Peru. Extension 2: Cooperating Agency: Universidad Nacional de San Agustin (Peru) - to operate a satellite laser tracking station at the National University of San Agustin (UNSA) Geophysical Institute at Characato in Arequipa, Peru.  | 4/30/2019 | 10/25/2024 |
| 306 | Johnson Space Center (JSC)                    | Curtin University of Technology             | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Philip Bland of Curtin University in Perth, Western Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 5/10/2019 | 5/10/2024  |
| 307 | Johnson Space Center (JSC)                    | Curtin University of Technology             | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Gretchen K. Benedix of Curtin University in Perth, Western Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 5/10/2019 | 5/10/2024  |
| 308 | Johnson Space Center (JSC)                    | Westfälische Wilhelms-Universität Münster   | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Andreas Stracke of Westfälische Wilhelms-Universität in Münster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 5/10/2019 | 5/10/2024  |
| 309 | Goddard Space Flight Center (GSFC)            | Japan Aerospace Exploration Agency (JAXA)   | Extension to Amendment to Memorandum of Understanding (MOU) Between NASA and the Japan Aerospace Exploration Agency (JAXA) for Cooperation on the Global Precipitation Measurement (GPM) Program   | Project-Specific Agreement (PSA) | Extension: The purpose of this Memorandum of Understanding (MOU) is to establish the terms and conditions under which NASA and JAXA will cooperate in the joint development, launch, operations and use of the Program for peaceful purposes. The Program consists of NASA and JAXA assets operating in partnership with other earth-observing satellites and instruments to produce global precipitation science data.   | 5/21/2019 | 12/31/2029 |

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| 310 | Johnson Space Center (JSC)         | Curtin University of Technology                                 | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA) | Fred Jourdan of Curtin University in Bentley, Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                 | 5/29/2019 | 5/29/2024  |
| 311 | Johnson Space Center (JSC)         | Vrije University Brussels (VUB)                                 | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA) | Seann J. McKibbin of Vrije Universiteit in Brussels, Belgium, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.            | 5/29/2019 | 5/29/2024  |
| 312 | Johnson Space Center (JSC)         | Physical Research Laboratory (PRL)                              | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA) | Dwijesh Ray of Physical Research Laboratory in Ahmedabad, India, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.         | 5/29/2019 | 5/29/2024  |
| 313 | Johnson Space Center (JSC)         | Chiba Institute of Technology                                   | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA) | Tomoko Arai of Chiba Institute of Technology in Narashino, Chiba, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator. | 5/29/2019 | 5/29/2024  |
| 314 | Johnson Space Center (JSC)         | National Institute of Polar Research (NIPR)                     | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA) | Akira Yamaguchi of National Institute of Polar Research in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator. | 5/29/2019 | 5/29/2024  |
| 315 | Goddard Space Flight Center (GSFC) | Bureau National D'Etudes Techniques et de Developpement (BNEDT) | Agreement between the National Aeronautics and Space Administration and the Bureau National D'Etudes Techniques et de Developpement Concerning Cooperation on Space Geodetic Research   | Project-Specific Agreement (PSA) | To establish cooperation in Earth observation and enhancement of the Global Geodetic Observing System (GGOS), development of space geodetic techniques, data sharing from local and global geodetic networks, improved analysis capability, and research on crustal motion, the interactions of the Earth systems, and natural hazards prediction and reduction.          | 7/12/2019 | 7/12/2029  |
| 316 | Goddard Space Flight Center (GSFC) |   | Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA) for Use of NASA's Space Network In Support of Ariane 6 Launches for ESA   | Project-Specific Agreement (PSA) | Reimbursable Agreement between NASA and ESA for the use of NASA's Space Network (SN) Tracking and Data Relay Satellite (TDRS) in support of telemetry data independent of the Telemetry Ground Stations for the Ariane 6 Launch Systems (Ariane 6).   | 7/16/2019 | 7/16/2024  |
| 317 | Ames Research Center (ARC)         | Canadian Space Agency (CSA)                                     | Reimbursable SAA Between the Canadian Space Agency (CSA) and NASA for Participation in the NASA International Internship Project  | Project-Specific Agreement (PSA) | Participating in the NASA International Internship (NASA I2 Project)  | 7/17/2019 | 12/31/2024 |
| 318 | Goddard Space Flight Center (GSFC) | Major University of San Andres                                  | NASA - UMSA AERONET   | Project-Specific Agreement (PSA) | to establish sun photometer stations at mutually agreed sites in Bolivia to measure vital aerosol optical properties and water vapor  | 7/26/2019 | 7/26/2029  |
| 319 | Headquarters (HQ)                  | Koninklijk Netherlands Meteorologisch Instituut (KNMI)          | Agreement between the National Aeronautics and Space Administration of the United States of America and the State of the Netherlands Koninklijk Nederlands Meteorologisch Institut For Cooperation in Calibration and Validation of the Tropospheric Monitoring Instrument (Tropomi) instrument | Project-Specific Agreement (PSA) | NASA will transport ozone profiling instruments, including up to two lidar instruments, to the Cesar Observatory in Cabauw, Netherlands, where KNMI will conduct a calibration and validation measurement campaign of the TROPospheric Monitoring Instrument (TropOMI), an instrument on the European Sentinel 5P satellite.  | 7/29/2019 | 7/29/2024  |

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| 320 | Goddard Space Flight Center (GSFC) | Space Research Organization of the Netherlands (SRON) | Agreement Between the National Aeronautics and Space Administration of the United States of American and The Netherlands Institute for Space Research for Cooperation on Using the Spectro-Polarimeter for Exploration on the Plankton, Aerosol, Cloud, ocean Ecosystem Mission | Project-Specific Agreement (PSA)        | The PACE mission will extend the high quality ocean ecological, ocean biogeochemical, cloud, and aerosol particle data records begun by NASA in the 1990s. The mission will collect radiometric and polarimetric measurements of the ocean and atmosphere. The PACE observatory is comprised of one primary instrument, an Ocean Color Instrument (OCI) and two auxiliary instruments, the Hyper-Angular Rainbow Polarimeter 2 (HARP-2) and the Spectro-Polarimeter for Exploration (SPEXone). Under this Agreement, SRON will provide the SPEXone instrument to NASA for integration on the PACE spacecraft. SPEXone is a narrow swath and hyperspectral polarimeter, which will be used to characterize aerosol microphysical properties | 7/31/2019 | 8/31/2027  |
| 321 | NASA Center Not Specified          | Italian Space Agency (ASI)                            | Implementing Arrangement Between NASA and the Italian Space Agency (ASI) on the Radar for Icy Moons Exploration Instrument (RIME) for the Jupiter Icy Moons Explorer Mission (JUICE)  | Implementing Arrangement/Agreement (IA) | JUICE is an ESA-lead mission that will investigate the potentially habitable zones of the Galilean icy satellites: Ganymede, Europa, and Callisto. ASI is providing the RIME, an ice penetrating radar. NASA is providing the radio frequency subsystem for the RIME instrument. The IA is under the US-Italy Space Framework.   | 8/5/2019  | 6/30/2034  |
| 322 | Goddard Space Flight Center (GSFC) | Japan Aerospace Exploration Agency (JAXA)             | Determining Unknown yet Significant Traits (DUST)   | Project-Specific Agreement (PSA)        | DUST is a joint NASA-JAXA astrophysics sounding rocket mission. JAXA will provide the DUST payload for launch on a NASA sounding rocket. NASA will perform overall project management for the mission.   | 8/8/2019  | 12/31/2024 |
| 323 | Johnson Space Center (JSC)         | Kyoto University                                      | Agreement between NASA and Kyoto University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Aki Takigawa of Kyoto University in Kyoto, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 8/9/2019  | 8/8/2024   |
| 324 | Johnson Space Center (JSC)         | IMPMC-NMHN (Mineralogie)                              | Agreement between NASA and the Institut de Mineralogie for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Matthieu Gounelle of the Institut de Mineralogie in Paris, France proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 8/9/2019  | 8/9/2024   |
| 325 | Johnson Space Center (JSC)         | Max Planck Institute for Chemistry                    | Agreement between NASA and the Max Planck Institute fur Chemie for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Ulrich Ott of the Max Planck Institute for Chemistry in Mainz, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 8/9/2019  | 8/9/2024   |
| 326 | Johnson Space Center (JSC)         | Tohoku University                                     | Agreement between NASA and Tohoku University for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Tomoki Nakamura of Tohoku University in Sendai, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 8/9/2019  | 8/9/2024   |
| 327 | Johnson Space Center (JSC)         | Kyushu University                                     | Agreement between NASA and the Kyushu University for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Takaaki Noguchi of Kyushu University in Fukuoka, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 8/9/2019  | 8/9/2024   |
| 328 | Johnson Space Center (JSC)         | Birkbeck College of London                            | Agreement between NASA and Birkbeck University for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Hilary Downes of Birkbeck University in London, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 8/9/2019  | 8/9/2024   |
| 329 | Ames Research Center (ARC)         | United Arab Emirates Space Agency (UAESA)             | Reimbursable Space Act Agreement Between NASA and The United Arab Emirates Space Agency (UAESA) for Participation in the NASA International Internship (I <sup>2</sup> ) Program  | Project-Specific Agreement (PSA)        | This agreement enables UAE Space Agency participation in the NASA International Internship Program (NASA I <sup>2</sup> ), designed to provide a collaborative environment where U.S. interns (university undergraduate students) or fellows (university graduate students) can interact and work alongside international peers on research opportunities.   | 8/28/2019 | 12/31/2024 |

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| 330 | Ames Research Center (ARC)         | University of New South Wales               | Agreement between NASA of the United States of America and the University of New South Wales in relation to the Australian Research Council Centre of Excellence for Quantum Computation and Communication Technology in the Advancement of Quantum Technologies | Project-Specific Agreement (PSA) | Under this Agreement, the Parties seek to engage in fundamental research related to understanding the basic mechanisms of quantum computing. Both Parties will utilize their respective capabilities and expertise to advance the understanding of quantum technologies and its potential applications. Specifically, joint practical and theoretical research will be conducted to further understand the resource and robustness requirements necessary to demonstrate advantages of quantum technologies. The Parties will also explore error mitigation techniques to improve the robustness of quantum technologies, and will explore combinations of quantum algorithms and quantum protocols that may support quantum cloud computing. | 9/17/2019 | 9/19/2024  |
| 331 | Goddard Space Flight Center (GSFC) | National Research Foundation (NRF)          | Extension 1: Satellite Laser Ranging (SLR)   | Project-Specific Agreement (PSA) | To continue cooperation with the National Research Foundation at the Hartebeesthoek Radio Astronomy Observatory (HartRAO) station measurement systems.  | 9/17/2019 | 9/30/2029  |
| 332 | Goddard Space Flight Center (GSFC) | European Space Agency (ESA)                 | Amendment #1: Laser Interferometer Space Antenna (LISA)  | Project-Specific Agreement (PSA) | Study agreement to determine NASA contributions to the ESA-led LISA mission.  | 9/18/2019 | 12/31/2023 |
| 333 | Johnson Space Center (JSC)         | Curtin University of Technology             | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Agreement for the loan of Antarctic Meteorite Samples to Curtin University Principal Investigator Lucy Forman.  | 9/18/2019 | 9/18/2024  |
| 334 | Johnson Space Center (JSC)         | Curtin University of Technology             | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Agreement for the loan of Antarctic Meteorite Samples to Curtin University Principal Investigator Lucy Forman.  | 9/18/2019 | 9/18/2024  |
| 335 | Johnson Space Center (JSC)         | Universitat zu Koln                         | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Agreement for the loan of Antarctic Meteorite Samples to Universitat zu Koln Principal Investigator Dominik Hezel.  | 9/18/2019 | 9/18/2024  |
| 336 | Johnson Space Center (JSC)         | University of Helsinki                      | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Agreement for the loan of Antarctic Meteorite Samples to University of Helsinki Principal Investigator Tomas Kohout.  | 9/18/2019 | 9/18/2024  |
| 337 | Johnson Space Center (JSC)         | National Institute of Polar Research (NIPR) | Agreement between NASA and the National Institute of Polar Research for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA) | Principal Investigator Makoto Kimura proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 9/18/2019 | 9/18/2024  |
| 338 | Johnson Space Center (JSC)         | Waseda University                           | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Agreement for the loan of Antarctic Meteorite Samples to Waseda University Principal Investigator Yoshihiro Hidaka.   | 9/18/2019 | 9/18/2024  |
| 339 | Johnson Space Center (JSC)         | Waseda University                           | International Antarctic Meteorite Sample Loan Agreement  | Project-Specific Agreement (PSA) | Agreement for the loan of Antarctic Meteorite Samples to Waseda University Principal Investigator Timothy Fagan.  | 9/18/2019 | 9/18/2024  |

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| 340 | Johnson Space Center (JSC)                    | Open University                          | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to Open University Principal Investigator Mahesh Anand.  | 9/18/2019 | 9/18/2024  |
| 341 | Johnson Space Center (JSC)                    | University of Glasgow                    | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to University of Glasgow Principal Investigator Luke Daly.   | 9/18/2019 | 9/18/2024  |
| 342 | Johnson Space Center (JSC)                    | Freie Universitat Berlin                 | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to Freie Universitat Berlin Principal Investigator Harry Becker.   | 9/18/2019 | 9/18/2024  |
| 343 | Johnson Space Center (JSC)                    | Open University                          | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to Open University Principal Investigator Mahesh Anand.  | 9/18/2019 | 9/18/2024  |
| 344 | Headquarters (HQ), Johnson Space Center (JSC) | Mohammed Bin Rashid Space Centre (MBRSC) | Implementing Arrangement for Cooperation in Astronaut Flight Opportunities  | Implementing Arrangement/Agreement (IA) | NASA and the Mohammed bin Rashid Space Centre (MBRSC) will work to identify UAE astronaut opportunities and outline flight-specific responsibilities in additional annexes.  | 9/19/2019 | 9/18/2024  |
| 345 | Johnson Space Center (JSC)                    | European Space Agency (ESA)              | NASA-ESA Cooperative Agreement regarding ESA Active Dosimeters (EAD) on Artemis I   | Project-Specific Agreement (PSA)        | Covers activities regarding the ESA Active Dosimeters (EAD) flying as a secondary payload in the Orion spacecraft during the Artemis I mission.  | 9/20/2019 | 9/20/2027  |
| 346 | Ames Research Center (ARC)                    | Israel Space Agency (ISA)                | Reimbursable Space Act Agreement Between the Israeli Space Agency (ISA) and NASA for Participation in the NASA International Internship Program (NASA I2) | Project-Specific Agreement (PSA)        | This Agreement enables Israel's participation in the NASA International Internship Program (NASA I2), designed to provide a collaborative environment where U.S. and foreign student interns interact and work alongside each other on research opportunities. | 9/25/2019 | 12/31/2024 |
| 347 | Johnson Space Center (JSC)                    |  | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to University of Regina Principal Investigator Ian Coulson.  | 10/1/2019 | 10/1/2024  |
| 348 | Johnson Space Center (JSC)                    |  | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to Geoscience Institute, Mineralogy Principal Investigator Frank Erich Brenker.  | 10/1/2019 | 10/1/2024  |
| 349 | Johnson Space Center (JSC)                    | Swedish Museum of Natural History        | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to Swedish Museum of Natural History Principal Investigator Renaud Merle.  | 10/1/2019 | 10/1/2024  |

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| 350 | Johnson Space Center (JSC)                 |   | International Antarctic Meteorite Sample Loan Agreement   | Project-Specific Agreement (PSA)        | Agreement for the loan of Antarctic Meteorite Samples to University of Cambridge Principal Investigator Farhang Nabiei.  | 10/1/2019  | 10/1/2024  |
| 351 | Goddard Space Flight Center (GSFC)         | Hokkaido University (HokuDai)   | Ocean Color Research and Lidar Field Work   | Project-Specific Agreement (PSA)        | NASA and Hokkaido University will collaborate on field campaigns and incorporate data into the SeaWiFS Bio-Optical Archive and Storage System (SeaBASS) archive. NASA will provide equipment (radiometers, for example) to make in situ measurements on Japanese campaigns. Hokkaido University will allow for visiting researchers and provide necessary support on Japanese campaigns.   | 10/1/2019  | 11/28/2024 |
| 352 | Jet Propulsion Laboratory (JPL)            | Ministry of Emergency Situations  | Agreement between NASA and the Ministry of Emergency Situations for Cooperation in Space Geodetic Research  | Project-Specific Agreement (PSA)        | Cooperation on space geodetic research through one or more Global Positioning System (GPS) ground stations in Armenia, including a GPS ground station at Yerevan.  | 10/5/2019  | 1/1/2100   |
| 353 | Johnson Space Center (JSC)                 | Canadian Space Agency (CSA), National Space Development Agency of Japan (NASDA) | "Monitoring the Cellular Immunity by in vitro Delayed Hypersensitivity on the ISS (Immunity Assay, formerly known as MoCISS)" on the ISS              | Project-Specific Agreement (PSA)        | The Annex is an agreement between NASA and ESA concerning support of the ISS Immunity Assay experiment to investigate the impact of spaceflight stressors on cellular immune functions. ESA will develop the hardware to perform the experiment and NASA will provide 12 hours of crew time on the ISS for the experiment.   | 10/7/2019  | 12/31/2024 |
| 354 | Glenn Research Center at Lewis Field (GRC) | Australian National Fabrication Facility Ltd (ANFF)                             | Umbrella Agreement and Annex 1 between the NASA and the Australian National Fabrication Facility Ltd (ANFF)   | Project-Specific Agreement (PSA)        | NASA and the ANFF plan to leverage their respective strengths to perform fundamental research to advance nanotechnology-based communications and sensing capabilities for aerospace, terrestrial, and biomedical applications. The goal of this cooperative effort is to explore previous, current, and future work that needs to be addressed in the areas of advanced materials, micro- and nano-electronics, including microfluidics, and Micro?Electromechanical Systems (MEMS), bio-nano applications, sensors and medical devices, and photonics. Accordingly, the Parties will attempt to identify gaps and develop methodologies and strategies through which current technology challenges, both at the material and component levels, could be addressed to advance nanotechnology-based communications and sensing capabilities in both | 10/9/2019  | 10/10/2024 |
| 355 | Jet Propulsion Laboratory (JPL)            | Indian Space Research Organization (ISRO)                                       | Airborne Synthetic Aperture Radar (ASAR) Airborne Campaign  | Implementing Arrangement/Agreement (IA) | NASA, in partnership with ISRO, using a NASA C-20A/G-III aircraft carrying the ISRO L- and S-band ASAR instrument, shall fly a remote sensing mission campaign over North America. NASA will provide a C-20A/G-III aircraft and associated radar instrument pod, and ISRO will provide the L- and S-band Airborne Synthetic Aperture Radar (ASAR) instrument.  | 10/9/2019  | 10/9/2029  |
| 356 | Goddard Space Flight Center (GSFC)         | Ministry of International Trade and Industry (MITI)                             | Amendment to Implementing Arrangement (IA) for Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) on Earth Observing System (EOS) | Implementing Arrangement/Agreement (IA) | The purpose of this Implementing Arrangement (IA) is to establish that the Parties will undertake scientific and technical cooperation for flight of the ASTER instrument on the NASA EOS-AM1 platform. The Parties jointly undertake this program with the purpose of furthering cooperation in global change research by enabling the multidisciplinary study and long-term systematic monitoring of the Earth, including research involving data from all Earth observing platforms contained in the IEOS and related activities of the IGBP, such as sensor calibration and data validation. Amendment to the IA - IA does not expire until end of mission.  | 10/15/2019 | 10/24/2026 |
| 357 | Jet Propulsion Laboratory (JPL)            | Korea Astronomy and Space Science Institute (KASI)                              | Spectro-Photometer for the History of the Universe, Epoch of Reionization, and Ices Explorer (SPHEREx)  | Project-Specific Agreement (PSA)        | The SPHEREx observatory will consist of a spacecraft bus and the telescope/spectrometers payload instrument. NASA will have overall responsibility for the SPHEREx mission. KASI will provide cryogenic ground support equipment, selected SPHEREx science data support, and participate in the SPHEREx science team.  | 10/15/2019 | 12/31/2027 |
| 358 | Goddard Space Flight Center (GSFC)         | Birla Institute of Technology, Extension Center Jaipur in Rajasthan             | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA provides AERONET instrument and support. Partner agrees to provide maintenance.   | 10/15/2019 | 10/31/2029 |
| 359 | Headquarters (HQ)                          | Italian Space Agency (ASI)  | NASA's Double Asteroid Redirection Test (DART)  | Implementing Arrangement/Agreement (IA) | The DART mission will provide the first demonstration of planetary defense via kinetic energy deflection of the secondary asteroid in the Didymos system. ASI will provide the Light Italian CubeSat for Imaging of Asteroids (LICIACube) CubeSat system to image the DART spacecraft's impact. This IA is under the US-Italy Framework Agreement.   | 10/18/2019 | 9/30/2023  |

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| 360 | Headquarters (HQ)                  | Ministry of Business, Innovation and Employment (MBIE)               | Agreement between the National Aeronautics and Space Administration and the Ministry of Business, Innovation and Employment Concerning the Collection and Analysis of Surface Scattering Measurements  | Project-Specific Agreement (PSA)        | In this cooperative effort, NASA and New Zealand Space Agency will install a GPS radar receiver on Air New Zealand commercial flights to make frequent and ongoing soil moisture measurements along the aircraft's domestic routes in New Zealand, collecting data over a wide range of terrains, seasons, and surface conditions that will be used to calibrate and validate the NASA Cyclone Global Navigation Satellite System (CYGNSS) Earth Venture mission's measurements.  | 10/22/2019 | 10/22/2029 |
| 361 | Headquarters (HQ)                  |  | Global Learning and Observations to Benefit the Environment (GLOBE)  | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.  | 10/25/2019 | 12/31/2100 |
| 362 | Johnson Space Center (JSC)         | National Research Council (CSIC)                                     | Agreement between NASA and the Institute of Space Sciences of the Spanish National Research Council for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Josep M. Trigo-Rodriguez proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 10/29/2019 | 10/29/2024 |
| 363 | Johnson Space Center (JSC)         | University of Manchester   | Agreement between NASA and University of Manchester University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Patricia Clay proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 10/29/2019 | 10/29/2024 |
| 364 | Johnson Space Center (JSC)         | Canada - MacEwan University  | Agreement between NASA and MacEwan University for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Erin Walton proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 10/29/2019 | 10/29/2024 |
| 365 | Goddard Space Flight Center (GSFC) | Arab Academy for Science, Technology and Maritime Transport (AASTMT) | AERONET - Arab Academy for Science, Technology and Maritime Transport (AASTMT)   | Project-Specific Agreement (PSA)        | The scientific goals of the National Aeronautics and Space Administration (NASA) include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites. | 11/17/2019 | 11/18/2100 |
| 366 | Goddard Space Flight Center (GSFC) | Bermuda Biological Station for Research, Inc.                        | Extension 2: Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and Bermuda Institute of Ocean Sciences (BIOS) will continue to cooperate on the operation of an AERONET sunphotometer station located at BIOS. NASA provides the equipment, and BIOS provides the site.   | 11/18/2019 | 11/18/2100 |
| 367 | Headquarters (HQ)                  | German Aerospace Center (DLR)  | Implementing Arrangement Between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the Aerosol Cloud Meteorology Interactions Over the Western North Atlantic (ACTIVATE) Atmospheric Science Experiment | Implementing Arrangement/Agreement (IA) | The purpose of this activity is to quantify and model how aerosols form clouds, how the meteorological environment affects these processes, and how the resulting cloud properties depend on aerosols and the meteorological environment. DLR will provide the Two Dimensional Stereo/Fast Cloud Droplet Probe and the Backscatter Cloud Probe with Polarization Detection instruments. NASA will fly these instruments on the NASA LaRC King Air and HU-25 aircraft.   | 11/21/2019 | 11/21/2024 |
| 368 | Johnson Space Center (JSC)         | Curtin University of Technology                                      | Agreement between NASA and Curtin University of Technology for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Alexander Nemchin proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 11/26/2019 | 11/26/2024 |
| 369 | Johnson Space Center (JSC)         | Heidelberg University  | Agreement between NASA and Heidelberg University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Mario Triecoff proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 11/26/2019 | 11/26/2024 |

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| 370 | Johnson Space Center (JSC)         | Universitat zu Koln                              | Agreement between NASA and the Universitat zu Koln for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA) | Principal Investigator Frank Wombacher proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 11/26/2019 | 11/26/2024 |
| 371 | Johnson Space Center (JSC)         | Open University                                  | Agreement between NASA and The Open University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA) | Principal Investigator Richard Greenwood proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 11/26/2019 | 11/26/2024 |
| 372 | Johnson Space Center (JSC)         | Kobe University                                  | Agreement between NASA and Kobe University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA) | Principal Investigator Kazushige Tomeoka proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 12/6/2019  | 12/6/2024  |
| 373 | Johnson Space Center (JSC)         | University of Leicester                          | Agreement between NASA and the University of Leicester for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA) | Principal Investigator John Bridges proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 12/6/2019  | 12/6/2024  |
| 374 | Ames Research Center (ARC)         | Karlsruhe Institute of Technology                | Agreement between the National Aeronautics and Space Administration of the United States of America and the Karlsruhe Institute of Technology of the Federal Republic of Germany Concerning the Concurrent In-Situ and Lidar Investigation of Ice Containing Clouds in the -40 to 0 Degree Celsius Temperature Range | Project-Specific Agreement (PSA) | Cooperation to fly the KIT-provided Particle Habit Imaging and Polar Scattering (PHIPS) instrument on the NSAA P3-B research aircraft to measure the microphysical characteristics and radiative properties of snowbands in order to fully understand the processes contributing to the increase in reflectivity associated with banded structures. The PHIPS instrument links microphysical details with ice crystal scattering property of polarized light, making it ideally suited to evaluate active remote sensing observations. | 12/9/2019  | 12/9/2024  |
| 375 | Ames Research Center (ARC)         | Victorian Space Science Education Center (VSSEC) | Amendment 2: Reimbursable Agreement for Australia's participation in NASA 1 THE NASA International Internship Project.   | Project-Specific Agreement (PSA) | Amendment 2: VSSEC was designated by the Australian Government to manage Australia's participation in this program on its behalf. This Reimbursable Space Act Agreement will be for the purpose of facilitating VSSEC's participation in the National Aeronautics and Space Administration International Internship Program designed to provide a collaborative environment where U.S. interns or fellows can interact and work alongside with international peers on research opportunities.  | 12/17/2019 | 12/31/2025 |
| 376 | Goddard Space Flight Center (GSFC) | European Space Agency (ESA)                      | Amendment: Hubble Space Telescope (HST)/2.4-Meter Space Telescope (ST)   | Project-Specific Agreement (PSA) | Amendment to continue the cooperation between NASA and European Space Agency (ESA) on the HubbleSpace Telescope (HST). Provision of a space observatory for use by the international astronomy community to extend the sensitivity, resolving power, and spectral range of astronomical observations decisively beyond those achievable from Earth observatories.  | 12/19/2019 | 12/31/2024 |
| 377 | Goddard Space Flight Center (GSFC) | European Space Agency (ESA)                      | Amendment: Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the James Webb Space Telescope (JWST)   | Project-Specific Agreement (PSA) | Amendment to the Memorandum of Understanding (MOU) Between NASA-ESA that provides cooperation on the James WebbSpace Telescope (JWST) Mission.   | 12/19/2019 | 3/31/2027  |
| 378 | Goddard Space Flight Center (GSFC) | University of Warsaw                             | AERONET cooperation with the University of Warsaw  | Project-Specific Agreement (PSA) | NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.  | 12/19/2019 | 12/31/2050 |
| 379 | Jet Propulsion Laboratory (JPL)    | Italian Space Agency (ASI)                       | Extension 3: Memorandum of Understanding (MOU) Between NASA and Agenzia Spaziale Italia (ASI) Concerning the Nuclear Spectroscopic Telescope Array (NuSTAR) Mission  | Project-Specific Agreement (PSA) | Extension 3: Memorandum of Understanding (MOU). NASA and ASI are cooperating on the Nuclear Spectroscopic Telescope Array (NuSTAR) mission. NASA is providing the mission while ASI is primarily providing the ground systems using their Malindi facility in Kenya.   | 12/23/2019 | 12/31/2023 |

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| 380 | Goddard Space Flight Center (GSFC)                    | Hiroshima University, Japan Aerospace Exploration Agency (JAXA) | Amendment 3: Amendment to the Agreement between NASA and JAXA and the Hiroshima University for Cooperation on the Gamma-Ray Large Area Space Telescope (GLAST or FERMI) Mission                 | Project-Specific Agreement (PSA)        | Amendment 3 for NASA-JAXA Cooperation GLAST.   | 12/31/2019 | 12/31/2023 |
| 381 | Goddard Space Flight Center (GSFC), Headquarters (HQ) | Ministry of Environment of the Slovak Republic                  | Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Environment of the Slovak Republic for Cooperation in the GLOBE Program | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community. | 12/31/2019 | 12/31/2100 |
| 382 | Headquarters (HQ)                                     | Technical University of Denmark (DTU)                           | Extension 3: Agreement for the Nuclear Spectroscopic Telescope Array (NuSTAR) mission   | Project-Specific Agreement (PSA)        | Agreement extension 3: Collaboration on the NuSTAR mission   | 1/13/2020  | 12/31/2023 |
| 383 | Goddard Space Flight Center (GSFC)                    | Italian Space Agency (ASI)                                      | Extension 3: Extension of the Memorandum of Understanding Between NASA and ASI Concerning the Gamma-ray Large Area Telescope Mission (GLAST)  | Project-Specific Agreement (PSA)        | Extension 3: Memorandum of Understanding (MOU). MOU covers the cooperation between NASA and ASI on the GLAST mission. It replaces all previous Letter of Agreement's (LOA) between ASI and NASA for the GLAST mission.   | 1/16/2020  | 12/31/2023 |
| 384 | Johnson Space Center (JSC)                            | CRPG-CNRS   | Agreement between NASA and CRPG for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Beatrice Luais proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 1/21/2020  | 1/21/2024  |
| 385 | Johnson Space Center (JSC)                            | University of the Basque Country (UPV/EHU)                      | Agreement between NASA and the University of the Basque Country for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Juan Manuel Madariaga proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 1/21/2020  | 1/21/2025  |
| 386 | Ames Research Center (ARC)                            | Korea Aerospace Research Institute (KARI)                       | 2nd Amendment to Reimbursable Space Act Agreement between KARI and NASA for Participation In the NASA International Internship Program (NASA I <sup>2</sup> )                                   | Implementing Arrangement/Agreement (IA) | This 2nd Amendment facilitates KARI's continued participation in NASA I2, which is managed by ARC for the agency. KARI will submit student nominations to NASA for possible placement in spring, summer, or fall internships at a NASA field center.   | 1/28/2020  | 12/31/2025 |
| 387 | Johnson Space Center (JSC)                            | University of Leicester   | Agreement between NASA and the University of Leicester for the Loan of Cosmic Dust Samples  | Project-Specific Agreement (PSA)        | Principal Investigator John Bridges proposes to use the Cosmic Dust samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Cosmic Dust Sample Curator at JSC and approved by the Cosmic Dust Sample Curator.   | 2/2/2020   | 2/3/2025   |
| 388 | Johnson Space Center (JSC)                            | CEREGE  | Agreement between NASA and CEREGE for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Pierre Rochette proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 2/3/2020   | 2/3/2025   |
| 389 | Johnson Space Center (JSC)                            | University College London                                       | Agreement between NASA and the London Centre for Nanotechnology for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Dominic Papineau proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 2/20/2020  | 2/20/2025  |

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| 390 | Ames Research Center (ARC)  | Agency for Science, Innovation and Technology (MITA)   | Amendment and Extension 2: Reimbursable Space Act Agreement Between the Agency for Science, Innovation and Technology (MITA) and NASA for Participation in the National Aeronautics And Space Administration International Internship Program | Project-Specific Agreement (PSA)        | Amendment and Extension 2: This Agreement enables MITA's participation in the NASA International Internship Program (NASA I2), designed to provide a collaborative environment where U.S. and foreign student interns interact and work alongside each other on research opportunities.  | 3/9/2020  | 12/31/2025 |
| 391 | Langley Research Center (LaRC)                                      | German Aerospace Center (DLR)  | Implementing Arrangement Between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the Transformation of Air Transportation Operations   | Project-Specific Agreement (PSA)        | The ATM system across the globe is facing new challenges as novel vehicle types, missions, and operations enter the market. At the same time, airspace systems also must contend with growth in traditional operations as commercial airline market demand, business aviation, and general aviation continue to expand. The new entrants include thin-haul aircraft, various sizes of unmanned aerial systems (UAS), urban air mobility (UAM) operations, supersonic transport, and an increasing need to facilitate space access. Foundational research and collaboration are required to explore the best manner to develop a future airspace system that enables this diverse set of operations in a scalable, flexible, and resilient manner that ensures safety and security for both existing and new users. Under this Arrangement, NASA    | 3/30/2020 | 1/31/2026  |
| 392 | Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL) | Japan Aerospace Exploration Agency (JAXA)  | Wide Field Infrared Space Telescope   | Project-Specific Agreement (PSA)        | Agreement to study possible cooperation on the NASA WFIRST Mission.  | 4/3/2020  | 3/31/2025  |
| 393 | Headquarters (HQ)   | Sweden - Swedish National Space Agency (SNSA)  | Implementing Arrangement under Framework Agreement with Sweden, for the loan of Omega Watch worn by Swedish Astronaut   | Implementing Arrangement/Agreement (IA) | This loan agreement continues OCOM's loan to SNSA of NASA's Omega Watch, originally worn by Swedish citizen and former ESA Astronaut Christer Fuglesang on Space Shuttle Missions STS-116 and STS-128, for public display and education.   | 4/14/2020 | 4/13/2025  |
| 394 | Goddard Space Flight Center (GSFC)                                  | Central Geophysical Observatory (CGO), Institute of Geophysics, Polish Academy of Sciences (PAS) | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and the Institute of Geophysics - Polish Academy of Sciences will cooperate on the operation of an AERONET sunphotometer station located at the Institute of Geophysics. NASA provides the equipment, and the Polish Academy of Sciences provides the site.   | 4/16/2020 | 4/16/2030  |
| 395 | Goddard Space Flight Center (GSFC)                                  | University of Dhaka  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and the University of Dhaka will cooperate on the operation of an AERONET sunphotometer station located at the University of Dhaka. NASA provides the equipment, and the University of Dhaka provides the site.   | 4/16/2020 | 1/25/2100  |
| 396 | Goddard Space Flight Center (GSFC)                                  | Italian Space Agency (ASI)   | IA for AERONET Cooperation between NASA and ASI   | Implementing Arrangement/Agreement (IA) | NASA and ASI shall establish one or more Sun photometers and/or lidar stations (hereinafter also referred to as "the station(s)") at mutually agreed sites. The inclusion of these stations within the global AERONET and/or MPLNET shall significantly improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both NASA and ASI to develop research programs using data collected by ASI along with data available from the global AERONET and MPLNET databases located at NASA's Goddard Space Flight Center in Greenbelt, Maryland.   | 4/20/2020 | 4/20/2025  |
| 397 | Goddard Space Flight Center (GSFC)                                  | Universidad Nacional de Colombia   | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and Universidad Nacional de Colombia will continue to cooperate on the operation of an AERONET sunphotometer station located at mutually agreed sites in Colombia. NASA provides the equipment, and Universidad Nacional de Colombia provides the sites.  | 5/8/2020  | 6/26/2025  |
| 398 | Johnson Space Center (JSC)  | University College London  | Extension of the Agreement Between NASA and The University College London (UCL) for Cooperation on Li-ion Battery Design  | Project-Specific Agreement (PSA)        | NASA and The University College London (UCL) in the United Kingdom will establish a cooperative agreement to advance an understanding of the relationship between Lithium ion (Li-ion) cell design and thermal runaway phenomena, which can lead to overheating and fire. This collaboration will guide safer battery designs, namely those features that mitigate the hazard of single cell thermal runaway, with potentially wide spectrum of future applications, including automobiles, aircraft and human spaceflight. NASA is conducting research aimed at developing thermal runaway propagation prevention measures in Li-ion battery pack designs, an area of interest to UCL. Meanwhile, among UCL Li-ion battery research interests is the performance of internal short circuit devices in simulating manufacturing defects, which can | 5/14/2020 | 5/24/2025  |
| 399 | Headquarters (HQ)   | Korea Astronomy and Space Science Institute (KASI)   | Agreement between the National Aeronautics and Space Administration of the United States of America and the Korea Astronomy and Space Science Institute for Space Geodesy   | Project-Specific Agreement (PSA)        | Cooperation to share space geodetic data, processed geodetic products, and conduct scientific and technical exchange in the field of space geodesy.  | 5/26/2020 | 6/30/2030  |

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| 400 | Jet Propulsion Laboratory (JPL)  | Indian Space Research Organization (ISRO)  | AVIRIS-NG Airborne Campaign extension  | Implementing Arrangement/Agreement (IA) | NASA will provide a C-20A/G-III aircraft and associated radar instrument pod, and ISRO will provide the L- and S-band Airborne Synthetic Aperture Radar (ASAR) instrument. NASA, in partnership with ISRO, using a NASA C-20A/G-III aircraft carrying the ISRO L- and S-band ASAR instrument, shall fly a remote sensing mission campaign over North America.  | 5/29/2020 | 9/24/2025  |
| 401 | Goddard Space Flight Center (GSFC)   | National Centre for Space Studies (CNES)   | Amendment (1) to the Implementing Arrangement (IA) Between NASA and CNES for Cooperation in Orbital Debris Conjunction Assessment & Risk Analysis  | Implementing Arrangement/Agreement (IA) | The purpose of this IA Amendment is to set forth the responsibilities of the Implementing Agencies for orbital debris conjunction assessment and risk analysis in order to provide improved mitigation options to satellite operators facing in-orbit collisions threats.  | 6/16/2020 | 6/15/2025  |
| 402 | Goddard Space Flight Center (GSFC), Headquarters (HQ)                          | Austrian Space Agency (ASA)  | Global Learning and Observations to Benefit the Environment (GLOBE) program  | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.   | 6/19/2020 | 6/21/2025  |
| 403 | Headquarters (HQ)  | Finnish Geodetic Institute (FGI)   | Agreement between the National Aeronautics and Space Administration of the United States of America and the Finnish Geospatial Research Institute for Space Geodesy  | Project-Specific Agreement (PSA)        | Cooperation to share space geodetic data, processed geodetic products, and conduct scientific and technical exchange in the field of space geodesy.  | 6/23/2020 | 6/23/2030  |
| 404 | Jet Propulsion Laboratory (JPL)  | National Centre for Space Studies (CNES)   | Extension for the Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) on the Juno Mission  | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) between NASA and CNES to provide researchers and a portion of the Jovian Auroral Distribution Experiment (JADE) on the NASA Juno mission. This IA is under the U.S.-French Umbrella.   | 7/10/2020 | 12/31/2024 |
| 405 | Goddard Space Flight Center (GSFC)   | European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)             | Extension 1 of the Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the European Organization for the Exploitation of Meteorological Satellites for Cooperation on the Global Precipitation Measurement Mission | Project-Specific Agreement (PSA)        | NASA will, for GPM, GCOM-W1, and all other GPM Partners' microwave sensor data, provide access to all Instrument Level 1 data and GPM data in both near real-time and as research products in accordance with GPM Partner data policies; provide access to NASA data products in both near real-time and as research products; and provide access to an algorithm theoretical basis document for the GPM data (including brightness temperature products and precipitation products) that discusses the calibration approach, geolocation, and key aspects of the conversion from instrument counts to brightness temperature. NASA will, for Ground Validation (GV) data provide access to GV data collected by NASA and GPM Partners, subject to GPM Partners' data policies; and for data processing of GPM data, provide read/write tools that | 7/15/2020 | 12/31/2029 |
| 406 | Johnson Space Center (JSC)   | Royal Holloway and Bedford New College   | Agreement between NASA and the Royal Holloway and Bedford New College for the Loan of Cosmic Dust samples  | Project-Specific Agreement (PSA)        | Principal Investigator Queenie Chan proposes to use the cosmic dust samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the cosmic dust Sample Curator at JSC and approved by the Sample Curator.   | 7/22/2020 | 7/22/2025  |
| 407 | Headquarters (HQ), Jet Propulsion Laboratory (JPL), Johnson Space Center (JSC) | Institute of Space and Astronautical Science (ISAS), Japan Aerospace Exploration Agency (JAXA) | NASA-JAXA Agreement for CubeSat Communications and 3-Way Doppler Support on Artemis I  | Project-Specific Agreement (PSA)        | A new collaborative agreement between NASA and JAXA in support of deep space communications cooperation for Artemis I. In this Agreement, under the NASA-JAXA Joint Understanding, NASA is providing JAXA with communications and tracking support for its two planned CubeSats, EQUULEUS and OMOTENASHI, while JAXA is providing 3-Way Doppler support to NASA for the MPCV as it travels beyond LEO.   | 8/4/2020  | 8/3/2025   |
| 408 | Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL)            | Chinese Academy of Sciences (CAS)  | Amendment and Extension 3: Cooperation on Space Geodesy for the solution on important scientific problems in geophysics  | Project-Specific Agreement (PSA)        | Amendment and Extension : 3 Cooperation for data exchange in support of space geodetic research and geohazards research.   | 8/27/2020 | 3/15/2025  |
| 409 | Langley Research Center (LaRC)   | Natural Resources Canada (NRCan)   | Collection of Scientific Flight Data on Vortex Sensing   | Project-Specific Agreement (PSA)        | NASA provides a wake vortex instrument for NRC flight research campaigns   | 9/1/2020  | 9/1/2024   |

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| 410 | Johnson Space Center (JSC)                            | Mohammed Bin Rashid Space Centre (MBRSC)   | REIMBURSABLE AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OF THE UNITED STATES OF AMERICA AND MOHAMMED BIN RASHID SPACE CENTRE FOR ASTRONAUT TRAINING   | Project-Specific Agreement (PSA)        | This reimbursable agreement is for the purpose of setting the terms and conditions with regard to training United Arab Emirates (UAE) astronauts for flight to the International Space Station (ISS). Two UAE astronauts will begin training for operational familiarity, flight qualification, and utilization activities at the NASA Johnson Space Center (JSC) in 2020, and two more will begin when the second group of two UAE astronauts will join the upcoming NASA Astronaut Candidate class.   | 9/8/2020   | 9/8/2025   |
| 411 | Ames Research Center (ARC)                            | International Space University (ISU)   | Reimbursable Space Act Agreement between the International Space University & the National Aeronautics and Space Administration of the United States of America for Participation in the NASA International Internship Project and NASA Visitor Exchange Program | Project-Specific Agreement (PSA)        | This Agreement enables ISU graduate students, on a cost reimbursable basis, to be nominated by ISU and selected by NASA mentors for NASA internships of 12 to 24 weeks.   | 9/23/2020  | 12/31/2025 |
| 412 | Headquarters (HQ), Jet Propulsion Laboratory (JPL)    | European Space Agency (ESA)  | Memorandum of Understanding between NASA and the European Space Agency (ESA) concerning the Flight Elements of the Mars Sample Return (MSR) Campaign   | Project-Specific Agreement (PSA)        | Under this MOU, NASA will provide the Sample Retrieval Lander and ESA will provide the Earth Return Orbiter to the joint MSR campaign. NASA and ESA expect each spacecraft to launch in 2026 and return Martian samples to Earth in 2031. The NASA Mars 2020 rover will collect the samples.  | 10/5/2020  | 9/30/2033  |
| 413 | Goddard Space Flight Center (GSFC)                    | Austrian Research Promotion Agency (FFG)   | Amendment 5 to the Agreement between NASA and FFG on the Time History of Events and Macroscale Interactions during Substorms (THEMIS)  | Project-Specific Agreement (PSA)        | Amendment 5: Cooperation in the Time History of Events and Macroscale Interactions during Substorms, a NASA mission to study the origin and global evolution of the magnetospheric substorm instability.  | 10/13/2020 | 3/31/2025  |
| 414 | Goddard Space Flight Center (GSFC), Headquarters (HQ) | Prefeitura de Rio de Janeiro, Brazil   | Hazard Monitoring and Disaster Response In and Around Rio de Janeiro, Brazil   | Implementing Arrangement/Agreement (IA) | The purpose of this Agreement is to forge cooperation that strengthens scientific collaboration between NASA and the City of Rio de Janeiro, specifically through the routine exchange of knowledge across disciplines and the use of Earth observations data and data products to enable innovative and ongoing efforts to anticipate, monitor and better assess the contributions to disaster risk from multiple natural hazards (including flooding, inundation, landslides, mudslides, drought, heat islands, fires, etc.) in the vicinity of Rio de Janeiro. | 10/13/2020 | 10/30/2025 |
| 415 | Johnson Space Center (JSC)                            | Museum of Applied Arts and Sciences - Powerhouse Museum                          | Agreement between NASA and Museum of Applied Arts and Sciences - Powerhouse Museum for the Loan of Lunar samples   | Project-Specific Agreement (PSA)        | Principal Investigator Jessica McLean proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.  | 10/14/2020 | 7/31/2025  |
| 416 | Headquarters (HQ)                                     | Korea Astronomy and Space Science Institute (KASI)                               | Amendment to the Agreement between NASA and KASI in Solar and Space Physics and Space Weather Research   | Project-Specific Agreement (PSA)        | Cooperation in the Solar Dynamics Observatory and the Magnetospheric MultiScale mission (MMS)   | 10/26/2020 | 3/31/2024  |
| 417 | Johnson Space Center (JSC)                            | European Space Agency (ESA)  | Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the European Space Agency Concerning Cooperation on the Civil Lunar Gateway  | Project-Specific Agreement (PSA)        | MOU to realize Gateway cooperation under the ISS IGA.   | 10/27/2020 | 12/31/2035 |
| 418 | Headquarters (HQ)                                     | National Centre for Space Studies (CNES)   | Global Learning and Observations to Benefit the Environment (GLOBE)  | Implementing Arrangement/Agreement (IA) | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle, and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.   | 10/27/2020 | 9/16/2040  |
| 419 | Goddard Space Flight Center (GSFC), Headquarters (HQ) | National Institute of Aeronautics and Space of the Republic of Indonesia (LAPAN) | Agreement between NASA and the National Institute of Aeronautics and Space of the Republic of Indonesia (LAPAN) for Cooperation in the Use of Ozonesondes to study Atmospheric Pollution   | Project-Specific Agreement (PSA)        | Under this agreement, NASA and LAPAN will collaborate on NASA's Southern Hemisphere Additional Ozonesondes (SHADOZ) program by collecting balloon-borne ozonesonde data obtained from LAPAN from the Island of Java.  | 11/4/2020  | 2/4/2025   |

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| 420 | Johnson Space Center (JSC)                 | Government of Canada   | Memorandum of Understanding between the Government of the United States of America and the Government of Canada Concerning Cooperation on the Civil Lunar Gateway  | Project-Specific Agreement (PSA)        | MOU to realize Gateway cooperation under the ISS IGA.   | 11/15/2020 | 12/31/2035 |
| 421 | Goddard Space Flight Center (GSFC)         | Institute of Applied Physics, Academy of Sciences of Moldova (ASM) | Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | The purpose of this letter agreement is to formalize cooperation between the National Aeronautics and Space Administration (NASA) of the United States of America and the Institute of Applied Physics of the Academy of Sciences (IAP-ASM) of Moldova (hereinafter referred to as "the Parties"), in the global Aerosol Robotic Network (AERONET) program. NASA's scientific goals include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. | 11/23/2020 | 9/22/2100  |
| 422 | Headquarters (HQ)                          | Ministry of Education and Sport                                    | Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Science and Sport of the Republic of Slovenia for Cooperation in the GLOBE Program                    | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.  | 12/3/2020  | 12/3/2100  |
| 423 | Headquarters (HQ)                          | Italian Space Agency (ASI)   | NASA-ASI Artemis Study Agreement   | Project-Specific Agreement (PSA)        | NASA and ASI to conduct feasibility studies on possible Italian elements contributing to the Artemis program, including: the development of lunar surface habitation capabilities and associated technologies for short-duration crewed missions to the lunar surface; lunar telecommunications support; and other potential ASI contributions.   | 12/4/2020  | 12/4/2025  |
| 424 | Johnson Space Center (JSC)                 | University of Cologne  | Agreement between NASA and the University of Cologne for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Carsten Muenker proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 12/10/2020 | 12/10/2025 |
| 425 | Headquarters (HQ)                          | German Aerospace Center (DLR)                                      | Framework Agreement Between NASA and the German Aerospace Center (DLR) On Cooperation in Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes  | Umbrella/Framework Agreement (UM/FW)    | Framework Agreement between NASA and DLR on Cooperation in Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes.  | 12/12/2020 | 12/13/2030 |
| 426 | Langley Research Center (LaRC)             | Japan Aerospace Exploration Agency (JAXA)                          | Supersonic Model Testing   | Implementing Arrangement/Agreement (IA) | NASA provides a supersonic wind tunnel model to JAXA for testing in their wind tunnel. Resulting data is jointly analyzed.  | 12/14/2020 | 3/31/2024  |
| 427 | Glenn Research Center at Lewis Field (GRC) | Australian National Fabrication Facility Ltd (ANFF)                | (Annex 2) Between NASA and ANFF Related to Research on Low Power Sensors for Integration with Remotely Powered Supercapacitors   | Implementing Arrangement/Agreement (IA) | An ANFF supercapacitor will be developed and integrated into a NASA sensor to demonstrate the ability of the integrated supercapacitor system to be charged remotely.   | 12/18/2020 | 12/17/2023 |
| 428 | Glenn Research Center at Lewis Field (GRC) | Australian National Fabrication Facility Ltd (ANFF)                | (Annex 3) Between NASA and ANFF Related to Research on Photonic Lanterns for Free Space Optical Communication Applications   | Implementing Arrangement/Agreement (IA) | NASA and ANFF to conduct research on photonic lanterns (coupling light from a single large-core fiber to multiple small-core fibers) for use in optical communication and sensing.  | 12/18/2020 | 12/17/2023 |
| 429 | Goddard Space Flight Center (GSFC)         | National Centre for Space Studies (CNES)                           | Second Amendment: Implementing Arrangement (IA) to provide data and calibration/validation cooperation between NASA and CNES on the U.S./Japan Global Precipitation Measurement (GPM) mission and French/Indian Megha-Tropiques mission. | Project-Specific Agreement (PSA)        | Second Amendment: Implementing Arrangement (IA) to provide data and calibration/validation cooperation between NASA and CNES on the U.S./Japan Global Precipitation Measurement (GPM) mission and French/Indian Megha-Tropiques mission.  | 12/18/2020 | 12/31/2024 |

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| 430 | Headquarters (HQ), Jet Propulsion Laboratory (JPL)    | European Space Agency (ESA)  | Peregrine Ion Trap Mass Spectrometer (PITMS)   | Project-Specific Agreement (PSA) | NASA will build, launch, and operate the PITMS instrument utilizing the Commercial Lunar Payload Services Program. ESA will provide the Exospheric Mass Spectrometer (EMS) component.  | 12/22/2020 | 6/30/2026  |
| 431 | Johnson Space Center (JSC)                            | CEREGE CNRS Aix-Marseille University   | Agreement between NASA and the CEREGE CNRS Aix-Marseille University for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA) | Principal Investigator Jerome Gattacceca to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 12/28/2020 | 12/28/2025 |
| 432 | Johnson Space Center (JSC)                            | University of Firenze  | Agreement between NASA and University of Firenze for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA) | Principal Investigator Giovanni Pratesi proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 12/28/2020 | 12/28/2025 |
| 433 | Johnson Space Center (JSC)                            | Government of Japan  | Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the Government of Japan Concerning Cooperation on the Civil Lunar Gateway  | Project-Specific Agreement (PSA) | MOU to realize Gateway cooperation under the ISS IGA   | 12/31/2020 | 12/31/2035 |
| 434 | Langley Research Center (LaRC)                        | National Centre for Space Studies (CNES)   | Extension and Amendment (1) to the Implementing Arrangement (IA) between NASA and CNES for the Pre-formulation feasibility studies for the Monitoring of the Evolution and State of Clouds and Aerosol Layers (MESCAL) Mission Pre-Formulation Studies                                 | Project-Specific Agreement (PSA) | Extension and Amendment to the Implementing Arrangement (IA) between NASA and CNES for the Pre-formulation feasibility studies for the Monitoring of the Evolution and State of Clouds and Aerosol Layers (MESCAL) Mission Pre-Formulation Studies   | 1/4/2021   | 9/30/2023  |
| 435 | Goddard Space Flight Center (GSFC), Headquarters (HQ) | Japan Aerospace Exploration Agency (JAXA)  | Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration and the Japan Aerospace Exploration Agency For Space Communication and Navigation Space Network Services in Support of the JAXA H3 Launch Vehicle / Compatibility Test and Precursor Flight | Project-Specific Agreement (PSA) | Reimbursable agreement between NASA and the Japan Aerospace Exploration Corporation (JAXA) for the Space Network (SN) Tracking and Data Relay Satellite (TDRS) services for one launch of the H-3 launch vehicle for the H-3/Mission 1 flight, to provide real-time telemetry of major events. Under this Agreement, the SN TDRS downlink support from NASA is requested for JAXA's scheduled launch of the H-3/Mission 1 with a launch date no earlier than July 1, 2022, which is the precursor flight to Martian Moon eXploration (MMX) mission on the H3 launch vehicle in the summer of 2024. | 1/6/2021   | 3/31/2026  |
| 436 | Jet Propulsion Laboratory (JPL)                       | Canadian Space Agency (CSA)  | Amendment 3: Implementing Arrangement (IA) Between NASA and Canadian Space Agency (CSA) for Cooperation on the Cloudsat Mission.   | Project-Specific Agreement (PSA) | Amendment 3: Implementing Arrangement (IA) Between NASA and Canadian Space Agency (CSA) for Cooperation on the Cloudsat Mission.   | 1/7/2021   | 12/31/2024 |
| 437 | Johnson Space Center (JSC)                            | Osaka University   | Agreement between NASA and Osaka University for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA) | Principal Investigator Kentaro Terada proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 1/11/2021  | 1/11/2026  |
| 438 | Johnson Space Center (JSC)                            | Institute of Space and Astronautical Science (ISAS), Japan Aerospace Exploration Agency (JAXA) | Agreement between NASA and ISAS/JAXA for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA) | Principal Investigator Tomohiro Usui proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.  | 1/11/2021  | 1/11/2026  |
| 439 | Johnson Space Center (JSC)                            | Ege University   | Agreement between NASA and Ege University for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA) | Principal Investigator Ozan Unsalan proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 1/11/2021  | 1/11/2026  |

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| 440 | Goddard Space Flight Center (GSFC) | Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore | Agreement Between NASA and Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore (NUS) for Cooperation in the Aerosol Robotic Network (AERONET) and the Micro Pulse Lidar Network (MPLNET) | Project-Specific Agreement (PSA) | For the proposed arrangement, NASA and Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore (NUS) will establish one or more sun photometer and/or lidar stations at mutually agreed sites.   | 1/12/2021 | 1/30/2100 |
| 441 | Johnson Space Center (JSC)         | Camp Spatial Canada   | Agreement between NASA and Camp Spatial Canada for the Loan of Lunar samples   | Project-Specific Agreement (PSA) | Principal Investigator Marie-Michele Limoges proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.                        | 1/21/2021 | 7/31/2026 |
| 442 | Johnson Space Center (JSC)         | University of Glasgow   | Agreement between NASA and the University of Glasgow for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA) | Principal Investigator Lydia Hallis to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.              | 1/25/2021 | 1/25/2025 |
| 443 | Johnson Space Center (JSC)         | IMPMC-NMHN (Mineralogie)  | Agreement between NASA and IMPMC/Museum Natl d'Histoire Naturell for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA) | Principal Investigator Emmanuel Jacquet proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator. | 1/25/2021 | 1/25/2026 |
| 444 | Johnson Space Center (JSC)         | University of Manchester  | Agreement between NASA and University of Manchester for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA) | Principal Investigator Ray Burgess proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.      | 1/25/2021 | 1/25/2026 |
| 445 | Johnson Space Center (JSC)         | MuseoPambata Foundation Inc   | Agreement between NASA and the MuseoPambata Foundation, Inc. for the Loan of Lunar samples   | Project-Specific Agreement (PSA) | Principal Investigator Maria Marcella P. Montero to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.                             | 1/27/2021 | 1/27/2026 |
| 446 | Johnson Space Center (JSC)         | Austria - Natural History Museum  | Agreement between NASA and the Natural History Museum for the Loan of Lunar samples  | Project-Specific Agreement (PSA) | Principal Investigator Ludovic Ferriere use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.   | 1/27/2021 | 7/31/2026 |
| 447 | Johnson Space Center (JSC)         | RiesKraterMuseum Noerdlingen  | Agreement between NASA and the RiesKraterMuseum Noerdlingen for the Loan of Lunar samples  | Project-Specific Agreement (PSA) | Principal Investigator David Wittner proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.                                | 1/28/2021 | 1/28/2026 |
| 448 | Johnson Space Center (JSC)         | Stiftung Haus der Geschichte der Bundesrepublik Deutschland                                 | Agreement between NASA and Stiftung Haus der Geschichte der Bundesrepublik Deutschland for the Loan of Lunar samples   | Project-Specific Agreement (PSA) | Principal Investigator Volker Thiel proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.                                 | 1/28/2021 | 1/28/2026 |
| 449 | Johnson Space Center (JSC)         | Canberra Deep Space Communication Complex (CDSCC) to the Australian Museum                  | Agreement between NASA and The NASA Canberra Deep Space Communication Complex for the Loan of Lunar samples  | Project-Specific Agreement (PSA) | Principal Investigator Glen Nagle proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.                                   | 1/28/2021 | 7/31/2026 |

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| 450 | Johnson Space Center (JSC)                            | ETH Zurich   | Agreement between NASA and ETH Zurich for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA)        | Principal Investigator Alison Hunt proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 2/4/2021  | 2/4/2026   |
| 451 | Goddard Space Flight Center (GSFC), Headquarters (HQ) | Norwegian Mapping Authority (NMA)                                  | Space Geodesy: Norwegian Mapping Authority (NMA) Agreement  | Project-Specific Agreement (PSA)        | An agreement for cooperation in the field of space geodesy, including Satellite Laser Ranging (SLR), Very Long Baseline Interferometry (VLBI), and Global Navigation Satellite Systems (GNSS).  | 2/10/2021 | 1/1/2031   |
| 452 | Headquarters (HQ)                                     | University of Bern   | Letter of Agreement between NASA and the University of Bern for Cooperation on the Interstellar Mapping and Acceleration Probe (IMAP) Mission   | Project-Specific Agreement (PSA)        | The Interstellar Mapping and Acceleration Probe mission will determine the properties of the interstellar medium and the acceleration of suprathermal particles. In the cooperation, University of Bern will provide the IMAP Lo and IMAP Hi instruments as well as calibration for the instruments. This activity also involves data exchange and cooperation research.  | 2/14/2021 | 2/24/2028  |
| 453 | Goddard Space Flight Center (GSFC)                    | Netherlands Space Office (NSO)                                     | Ozone Monitoring Instrument (OMI) on Aura   | Project-Specific Agreement (PSA)        | The Netherlands Space Office (NSO), which superceded the Netherlands Agency for Aerospace Programmes (NIVR), will provide continued operation of the ozone monitoring instrument (OMI) launched in 2004 on NASA's Aura spacecraft and support scientific investigations including data processing.  | 2/18/2021 | 12/31/2023 |
| 454 | Johnson Space Center (JSC)                            | Observatoire Midi-Pyrenees   | Agreement between NASA and Observatoire Midi-Pyrenees for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA)        | Principal Investigator Quitte Ghylaine proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 2/22/2021 | 2/22/2026  |
| 455 | Johnson Space Center (JSC)                            | Japan Space Forum  | Agreement between NASA and the Japan Space Forum for the Loan of Lunar samples  | Project-Specific Agreement (PSA)        | Principal Investigator Kazuya Fushimi use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.  | 2/26/2021 | 2/26/2026  |
| 456 | Johnson Space Center (JSC)                            | Noordwijk Space Expo   | Agreement between NASA and Noordwijk Space Expo for the Loan of Lunar samples   | Project-Specific Agreement (PSA)        | Principal Investigator Barbara Hoppel proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.  | 2/26/2021 | 2/26/2026  |
| 457 | Johnson Space Center (JSC)                            | The Visitor Center at the Madrid Deep Space Communications Complex | Agreement between NASA and The Visitor Center at the Madrid Deep Space Communications Complex for the Loan of Lunar Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Ray Burgess proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the lunar Sample Curator at JSC and approved by the Sample Curator  | 2/26/2021 | 7/31/2026  |
| 458 | Goddard Space Flight Center (GSFC)                    | National Centre for Space Studies (CNES)                           | Amendment 5: Solar Terrestrial Relations Observatory (STEREO)   | Project-Specific Agreement (PSA)        | Amendment 5: The National Centre for Space Studies (CNES) will provide STEREO/Wind/Radio and Plasma Wave Experiment (S/WAVES) instrument suite. Co-Is were selected to provide portions of instruments for SECCHI and IMPACT suites.  | 3/3/2021  | 3/31/2024  |
| 459 | Johnson Space Center (JSC)                            | Japan Aerospace Exploration Agency (JAXA)                          | Amendment 1: Reimbursable Space Act Agreement Between NASA and the Japan Aerospace Exploration Agency (JAXA) on JAXA's Use of NASA's Common Spares Pool (CSP) to Support the Japanese Experiment Module (JEM) | Implementing Arrangement/Agreement (IA) | Amendment 1 to replace Articles II-VII in their entirety, which updated language to reflect the retirement of the Shuttle and to provide for the Spares Analysis and JAXA payment for estimated CSP requirements through 2020. The Basic Agreement between NASA and JAXA, which enabled JAXA to use the Common Spares Pool, on a reimbursable basis to NASA, for spares/repair parts to maintain the ISS-JEM. The Basics Agreement also supersedes and terminates the previous CSP-JEM Agreement between NASA and JAXA. | 3/13/2021 | 12/31/2024 |

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| 460 | Goddard Space Flight Center (GSFC),Headquarters (HQ)     | National Research Council (CNR)                         | NASA-National Institute of Optics of the National Research Council (CNR) Asian Summer Monsoon Chemical and Climate Impact Project (ACCLIP) Agreement   | Project-Specific Agreement (PSA)        | The National Institute of Optics of the National Research Council will provide an instrument to be flown on the NASA WB-57 aircraft during the Asian Summer Monsoon Chemical and Climate Impact Project (ACCLIP).   | 3/15/2021 | 3/15/2024  |
| 461 | Ames Research Center (ARC),Johnson Space Center (JSC)    | Japan Aerospace Exploration Agency (JAXA)               | Amendment and Extension 2: Cooperation Between NASA and JAXA on Wind Tunnel Testing in JAXA's High Enthalpy Shock Tunnel (HIEST)   | Project-Specific Agreement (PSA)        | Amendment and extension 2 of previous cooperation involving use of JAXA's High Enthalpy Shock Tunnel (HIEST) to provide wind tunnel testing on a NASA Apollo-like capsule.  | 3/15/2021 | 3/31/2024  |
| 462 | Jet Propulsion Laboratory (JPL)                          | National Centre for Space Studies (CNES)                | Mars Atmosphere and Volatile Evolution (MAVEN)   | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) between NASA and CNES to provide the Solar Wind Electron Analyzer (SWEA) analyzer, a component of the SWEA instrument, for flight on the NASA MAVEN mission.  | 3/15/2021 | 12/31/2024 |
| 463 | Ames Research Center (ARC)                               | Swiss International Air Lines Limited                   | Amendment to Nonreimbursable Space Act Agreement Between NASA and Swiss International Air Lines Limited on Research Studies for Improvement of Aviation Safety and Assuring Safe and Effective Human Systems Integration | Project-Specific Agreement (PSA)        | Desiring to continue cooperation related to research studies for improvement of aviation safety and ensuring safe and effective human systems integration, under the Agreement signed on February 9, 2016;  | 3/16/2021 | 12/31/2025 |
| 464 | Headquarters (HQ),George C. Marshall Space Flight Center | Canadian Space Agency (CSA)                             | Extension to the Framework Agreement between the Government of the United States of America and the Government of Canada For Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes                 | Umbrella/Framework Agreement (UM/FW)    | The Framework Agreement AND its Extension set forth the obligations, terms & conditions for the cooperation between NASA and CSA, or any other designated Agency of either Party, in the exploration and use of outer space for peaceful purposes in areas of common interest and on the basis of equality and mutual benefit.  | 3/17/2021 | 3/11/2030  |
| 465 | Goddard Space Flight Center (GSFC),Headquarters (HQ)     | Royal Government of Bhutan (GOB)                        | Agreement between the National Aeronautics and Space Administration of the United States of America and the Royal Government of Bhutan for Cooperation in the GLOBE Program  | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.                              | 3/19/2021 | 3/19/2026  |
| 466 | Johnson Space Center (JSC)                               | Friedrick-Schiller-University Jena                      | Agreement between NASA and Friedrich-Schiller-University Jena for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA)        | Principal Investigator Falko Langenhorst proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 3/26/2021 | 3/26/2026  |
| 467 | Johnson Space Center (JSC)                               | Natural History Museum                                  | Agreement between NASA and The Natural History Museum, London for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA)        | Principal Investigator Martin Suttle proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 4/8/2021  | 4/8/2026   |
| 468 | Headquarters (HQ)  | Russian Federal Space Agency (Roskosmos)                | Agreement Between the United States of America and the Russian Federation Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes   | Umbrella/Framework Agreement (UM/FW)    | Amendment 5: Extended by an exchange of diplomatic notes. Government to Government Agreement between the U.S. and the Russian Federation for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes. Crosscutting. Dip Notes extended the Agreement from June 17, 2007, through June 16, 2012. Russia Dip Note No. 10778 dated 3 Dec 2007, U.S. Dip Note MFA No. 153-07, dated 26 Dec 2007, and State Cable 169755 delivered U.S. Dip Note on 27 Dec 2007. | 4/12/2021 | 12/31/2030 |
| 469 | Johnson Space Center (JSC)                               | Institut de Planetologie et d'Astrophysique de Grenoble | Agreement between NASA and Institute for Planetary science and Astrophysics of Grenoble for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA)        | Principal Investigator Olivier Poch proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.  | 4/15/2021 | 4/15/2026  |

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|-----|------------------------------------|---|---|----------------------------------|--|-----------|-----------|
| 470 | Johnson Space Center (JSC)         | Okayama University  | Agreement between NASA and Okayama University for the Loan of Antarctic Meteorite samples                 | Project-Specific Agreement (PSA) | Principal Investigator Matthew Izawa proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.      | 4/15/2021 | 4/15/2026 |
| 471 | Johnson Space Center (JSC)         | Museum fur Naturkunde, Berlin   | Agreement between NASA and Museum fur Naturkunde Berlin for the Loan of Antarctic Meteorite samples       | Project-Specific Agreement (PSA) | Principal Investigator Thomas Kruijer proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.     | 4/19/2021 | 4/19/2026 |
| 472 | Johnson Space Center (JSC)         | Japan Aerospace Exploration Agency (JAXA)   | Agreement between NASA and Japan Aerospace Exploration Agency for the Loan of Antarctic Meteorite samples | Project-Specific Agreement (PSA) | Principal Investigator Tomohiro Usui proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.      | 4/19/2021 | 4/19/2026 |
| 473 | Johnson Space Center (JSC)         | The University of Oxford  | Agreement between NASA and University of Oxford for the Loan of Antarctic Meteorite samples               | Project-Specific Agreement (PSA) | Principal Investigator James Bryson proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.       | 4/19/2021 | 4/19/2026 |
| 474 | Goddard Space Flight Center (GSFC) | Jacob Blaustein Institute for Desert Research, Ben-Gurion University of the Negev | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA) | NASA and Ben Gurion University will continue to cooperate on the operation of an AERONET sunphotometer station located at Ben Gurion University's Jacob Blaustein Institutes for Desert Research. NASA provides the equipment, and Ben Gurion University provides the site.                                  | 4/21/2021 | 4/30/2100 |
| 475 | Johnson Space Center (JSC)         | Utrecht University  | Agreement between NASA and Utrecht University for the Loan of Antarctic Meteorite samples                 | Project-Specific Agreement (PSA) | Principal Investigator Inge Loes ten Kate proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator. | 4/22/2021 | 4/22/2026 |
| 476 | Goddard Space Flight Center (GSFC) | Brazilian Space Agency (AEB)  | Amendment 2: Space Geodesy: Space Geodetic Research and Global Positioning System (GPS)                   | Project-Specific Agreement (PSA) | To establish one or more permanent Global Positioning System (GPS) ground stations in Brazil Implementing Arrangement under the Framework.   | 4/28/2021 | 4/30/2030 |
| 477 | Goddard Space Flight Center (GSFC) | Silpakorn University  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA) | NASA and Silpakorn University will continue to cooperate on the operation of an AERONET sunphotometer station located at mutually agreed sites in Thailand. NASA provides the equipment, and Silpakorn University provides the sites.  | 4/30/2021 | 4/30/2100 |
| 478 | Johnson Space Center (JSC)         | Polish Academy of Sciences (PAS)  | Agreement between NASA and the Polish Academy of Sciences for the Loan of Antarctic Meteorite samples     | Project-Specific Agreement (PSA) | Principal Investigator Jakub Ciazela proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.      | 5/5/2021  | 5/5/2026  |
| 479 | Johnson Space Center (JSC)         | Universite de Clermont-Ferrand  | Agreement between NASA and Universite de Clermont-Ferrand for the Loan of Antarctic Meteorite samples     | Project-Specific Agreement (PSA) | Principal Investigator Maud Boyet proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.         | 5/11/2021 | 5/11/2026 |

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|-----|---|--|---|---|---|-----------|------------|
| 480 | Headquarters (HQ)                                     | Polar Knowledge Canada (POLAR)   | Amendment 2: Agreement between NASA and Polar Knowledge Canada for Cooperation in the Arctic Boreal Vulnerability Experiment (ABOVE)  | Project-Specific Agreement (PSA)        | Amendment 2: NASA and Polar Knowledge Canada will cooperate on the Arctic Boreal Vulnerability Experiment to study how social-ecological systems in high northern latitude regions of northwestern North America are responding and feeding back to environmental and social change.  | 5/14/2021 | 5/14/2026  |
| 481 | Johnson Space Center (JSC)                            | Free University of Brussels  | Agreement between NASA and the Free University of Brussels for the Loan of Antarctic Meteorite samples  | Project-Specific Agreement (PSA)        | Principal Investigator Philippe Claeys use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 5/20/2021 | 5/20/2026  |
| 482 | Johnson Space Center (JSC)                            | Vrije University Brussels (VUB)  | Agreement between NASA and the Vrije Universiteit Brussel for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA)        | Principal Investigator Steven Goderis to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.   | 5/20/2021 | 5/20/2026  |
| 483 | Johnson Space Center (JSC)                            | Royal Holloway and Bedford New College                                       | Agreement between NASA and the Royal Holloway and Bedford New College for the Loan of Antarctic Meteorite samples   | Project-Specific Agreement (PSA)        | Principal Investigator Queenie Chan proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.  | 5/20/2021 | 5/20/2026  |
| 484 | Goddard Space Flight Center (GSFC)                    | Swedish National Space Board (SNSB)  | Amendment 1 to the Implementing Arrangement Between the National Aeronautics and Space Administration and the Swedish National Space Administration (SNSA) on the Magnetospheric Multiscale Mission (MMS)                     | Implementing Arrangement/Agreement (IA) | Cooperation on magnetospheric multiscale mission  | 5/24/2021 | 3/31/2024  |
| 485 | Kennedy Space Center (KSC)                            | German Aerospace Center (DLR)  | Implementing Arrangement between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the EDEN-ISS Project  | Visiting Researcher Agreement (VRA)     | TO goal of the EDEN ISS project is to advance controlled-environment agriculture technologies for use in space by focusing on ground demonstration of plant cultivation technologies and their application to space. NASA will prepare a visiting researcher to visit Neumayer III Station and DLR will provide access to the Neumayer III to the visiting researcher.  | 6/7/2021  | 6/7/2024   |
| 486 | NASA Center Not Specified                             | National Centre for Space Studies (CNES)                                     | Implementing Arrangement Between NASA and CNES on the Jupiter Icy Moons Explorer Mission (JUICE)  | Implementing Arrangement/Agreement (IA) | JUICE is an ESA-led mission that will visit the moons of Jupiter. NASA and CNES are cooperating on the Particle Environment Package (PEP) and the Ultra Violet Spectrograph (UVS) instrument.   | 6/7/2021  | 12/31/2036 |
| 487 | Goddard Space Flight Center (GSFC)                    | Universiti Sains Malaysia  | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA and Universiti Sains Malaysia (USM) will cooperate on the operation of an AERONET sunphotometer station located at USM. NASA provides the equipment, and USM provides the site.  | 6/10/2021 | 5/31/2100  |
| 488 | Goddard Space Flight Center (GSFC), Headquarters (HQ) | Ministry of Education, Science, Culture and Sport of the Republic of Armenia | Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Science, Culture and Sport of the Republic of Armenia for Cooperation in the GLOBE Program | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.  | 6/14/2021 | 6/14/2100  |
| 489 | Goddard Space Flight Center (GSFC)                    | Geophysical Institute of Peru (IGP)  | Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and the Geophysical Institute of Peru (IGP) for Cooperation in the Aerosol Robotic Network (AERONET)               | Project-Specific Agreement (PSA)        | NASA's scientific goals include a more detailed understanding of global atmospheric change phenomena with emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of sun photometers, called AERONET (Aerosol RObotic NETwork), in cooperation with a wide range of international partner agencies and institutions. These devices are used to measure water vapor and aerosol optical properties, which are necessary measurements as well as being essential for ground-based validation for aerosol measurements taken by satellites. For the proposed arrangement, the National Aeronautics and Space Administration (NASA) and the Geophysical Institute of Peru (IGP) will establish sun photometer stations at mutually agreed sites. | 7/1/2021  | 7/1/2500   |

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| 490 | George C. Marshall Space Flight Center (MSFC)  | Japan Aerospace Exploration Agency (JAXA)                      | Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the Japan Aerospace Exploration Agency of Japan for Cooperation on JAXA CubeSats on Artemis I   | Project-Specific Agreement (PSA)        | This MOU covers launch and post-launch activities for the two JAXA CubeSats flying on Artemis I.  | 7/2/2021  | 7/2/2032   |
| 491 | Johnson Space Center (JSC)   | European Space Agency  | Agreement between NASA and The European Space Agency for the Loan of Lunar samples  | Project-Specific Agreement (PSA)        | Principal Investigator Juergen Schlutz proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.   | 7/12/2021 | 1/31/2026  |
| 492 | Johnson Space Center (JSC)   | The Board of Trustees of the Science Museum                    | Agreement between NASA and The Board of Trustees of the Science Museum for the Loan of Lunar samples  | Project-Specific Agreement (PSA)        | Principal Investigator Emily Oldfield proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.  | 7/12/2021 | 7/31/2026  |
| 493 | Goddard Space Flight Center (GSFC)   | European Space Agency  | Memorandum of Understanding Concerning the Nancy Grace Roman Space Telescope Mission  | Project-Specific Agreement (PSA)        | Cooperative agreement for Roman Space Telescope; ESA to provide star-trackers.  | 7/22/2021 | 6/30/2034  |
| 494 | Armstrong Flight Research Center (AFRC), Headquarters (HQ), Kennedy Space Center (KSC) | Italian Space Agency (ASI)                                     | Amendment of the Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic for Technology Demonstrations of the Galileo Receiver for High Elliptical Orbit - GARHEO   | Implementing Arrangement/Agreement (IA) | SL-14 launched in November 2019, with the NASA and ASI hardware as two separate payloads that were not integrated. For SpaceLoft 15 (SL-15), in this amendment to the original IA, NASA and ASI are targeting a launch opportunity scheduled for October 2021, as integrated payloads provided by NASA's Flight Opportunities Program. UP Aerospace has been contracted by NASA for installation of NASA and Federal Aviation Administration (FAA) payloads on SL-15. AFTS, which was a payload on SL-14, is to be used to compare multi-GNSS receivers on SL-15. Original Implementing Arrangement with the Italian Space Agency (ASI) was for cooperation on the flight test of the Autonomous Flight Termination System (AFTS), and in particular to examine the signal availability of the GPS+Galileo signals in high elliptical           | 7/26/2021 | 11/19/2024 |
| 495 | Ames Research Center (ARC), Langley Research Center (LaRC)                             | German Aerospace Center (DLR)                                  | Spacecraft Entry Vehicle Subsonic Aerodynamic Study   | Implementing Arrangement/Agreement (IA) | NASA designs and provides EEV and ADEPT models to DLR for testing in their wind tunnel. Resulting data is compared to data from similar simulations conducted at LaRC and is jointly analyzed.  | 7/28/2021 | 7/28/2024  |
| 496 | Ames Research Center (ARC)   | CENTRALESUPELEC  | Non-Reimbursable Space Act Agreement Between NASA and Centralesupélec for the Measurement and Analysis of Recombination Data  | Project-Specific Agreement (PSA)        | The purpose of this Agreement is to better understand the reactions and emission processes in the expanding flows of N2, Air and CO2 through a series of tests at both the ARC's Electric Arc Shock Tube (EAST) and CentraleSupélec's plasma torch. The joint activity shall utilize studies at both locations to obtain and analyze data on the recombination of reactive species as the high-energy plasma cools. The interest in recombining plasmas is motivated by processes that are responsible for heating the back shell of an entry vehicle during atmospheric entry, which drives sizing of the thermal protection system. NASA shall send 1-2 researchers and equipment (a Tunable Diode Laser, Daylight Solutions 41043-MHF, ECN #2581622) to CentraleSupélec for two weeks each year to complete joint measurements in the plasma | 8/24/2021 | 8/24/2024  |
| 497 | Goddard Space Flight Center (GSFC)   | Brazil - Ministry of Science, Technology and Innovation (MCTI) | Agreement on Cooperation in Science, Technology and Innovation between the National Aeronautics and Space Administration (NASA) of the United States of America and the Ministry of Science, Technology and Innovation (MCTI) of the Federative Republic of Brazil for Global Precipitation Measurement Ground Calibration and Validation | Project-Specific Agreement (PSA)        | This agreement with the Ministry of Science, Technology and Innovation (MCTI) of Brazil allows for cooperation on calibration and validation for NASA's Global Precipitation Measurement (GPM) satellite. The agreement allows for NASA to use environmental data from Brazil's network of the National Center for Monitoring and Warnings of Natural Disasters (CEMADEN) for GPM cal/val. I will sign by correspondence for NASA, Minister Pontes of MCTI will sign for Brazil.  | 8/27/2021 | 8/26/2026  |
| 498 | Ames Research Center (ARC)   | German Aerospace Center (DLR)                                  | Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Collaboration on Fundamental Studies of Combined Aerothermal-Mechanical Erosion  | Implementing Arrangement/Agreement (IA) | This IA falls under the DLR Framework Agreement. The Parties will perform collaborative fundamental studies of the mechanical erosion of materials due to atmospheric dust during entry at Mars. The data generated will be used to construct and validate computational codes useful for the design of entry systems to safely deliver landers for both robotic science missions and human missions. The experimental campaign will be jointly designed by NASA and DLR, and then executed by DLR. This Implementing Arrangement will allow for the ability to model and predict erosion due to dust, which is critical to mission design and assurance for future Mars missions.  | 9/1/2021  | 3/28/2024  |
| 499 | Goddard Space Flight Center (GSFC), Headquarters (HQ)                                  | European Space Agency (ESA)                                    | Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for Use of NASA's Space Network Tracking and Data Relay Satellite System (TDRSS) in Support of Vega Launches for ESA  | Project-Specific Agreement (PSA)        | This Reimbursable Space Act Agreement (hereinafter referred to as 'Agreement') is for the purpose of setting out the terms and conditions with regard to both the initial and the recurrent work to be performed by NASA for ESA's use of the Space Network Tracking and Data Relay Satellite System (TDRSS) in support of telemetry data independent of the Telemetry Ground Stations for the Vega Launch Systems (VEGA).  | 9/8/2021  | 5/24/2026  |

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| 500 | Headquarters (HQ), Jet Propulsion Laboratory (JPL)  | Germany - The Federal Agency for Cartography and Geodesy of Germany (BKG) | Agreement between NASA and the Federal Agency for Cartography and Geodesy of Germany for cooperation in Space Geodesy  | Project-Specific Agreement (PSA)        | Space Geodesy Cooperation   | 9/8/2021  | 9/8/2031   |
| 501 | Goddard Space Flight Center (GSFC), Headquarters (HQ)                                     | Italian Space Agency (ASI)  | Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic for Technology Demonstrations of the Lunar GNSS Receiver Experiment - LuGRE  | Implementing Arrangement/Agreement (IA) | LuGRE is an experimental payload that will fly a GPS + Galileo navigation receiver to the lunar surface to demonstrate autonomous real-time onboard navigation in the lunar environment. It will receive GPS and Galileo signals and use them to calculate position, navigation, and timing (PNT) solutions ("fixes") during the Earth-Moon transit phase, and then on the lunar surface for a 12-day surface mission duration. LuGRE will return the navigation solutions themselves, the raw precursor measurements, and raw signal samples, allowing the Implementing Agencies to "play back" the signals in a lab for development of future operational receivers. This is a critical demonstrator for precise onboard lunar navigation, which is itself an enabler for lunar telecommunications network services like LunaNet, lunar-vicinity relays, surface beacons. | 9/13/2021 | 9/13/2026  |
| 502 | Headquarters (HQ)   | Russia - Ministry of Foreign Affairs                                      | U.S.-Russia Duty-Free Agreement  | Umbrella/Framework Agreement (UM/FW)    | Extension 4: Procedure for duty-free entry of goods transported within the framework of the U.S.-Russia Civil Space Agreement   | 9/16/2021 | 8/25/2026  |
| 503 | Headquarters (HQ)   | United Kingdom Space Agency (UKSA)  | Memorandum of Understanding Between the National Aeronautics and Space Administration and the United Kingdom Space Agency for the Provision of the Interstellar Mapping and Acceleration Probe (IMAP) Magnetometer   | Project-Specific Agreement (PSA)        | Cooperation on the Interstellar Mapping and Acceleration Probe (IMAP) mission. IMAP mission is part of NASA's Solar Terrestrial Probe Program. It is expected to provide the first comprehensive in situ and remote global observations to discover the fundamental physical processes that control the solar system's evolving space environment. UKSA will contribute a magnetometer.   | 9/22/2021 | 3/31/2029  |
| 504 | Johnson Space Center (JSC)  | University of Bern  | Agreement between NASA and the University of Bern for the Loan of Lunar samples  | Project-Specific Agreement (PSA)        | Principal Investigator Andre Galli use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.   | 9/23/2021 | 9/23/2026  |
| 505 | Ames Research Center (ARC)  | Portugal - Instituto Superior Técnico (IST)                               | Non-Reimbursable Space Act Agreement Between NASA and the Instituto Superior Técnico for the Measurement and Analysis of High-Speed Flow Data  | Project-Specific Agreement (PSA)        | The purpose of this fundamental research collaboration is to characterize the gas ionization within high-speed shockwaves through the application of a microwave interferometry diagnostic. NASA shall host an IST researcher for a period of six months, who shall perform shockwave characterization at NASA ARC's Electric Arc Shock Tube (EAST) using IST's microwave interferometry instrument. The data obtained shall be compared to similar data collected by the IST researcher at IST's European Shock Tube for High Enthalpy Research (ESTHER), using similar conditions and the same instrumentation. The two datasets shall be shared between the parties for technical analysis and publication. Work by the researcher outside of the responsibilities outlined below is not permitted under this agreement.   | 9/24/2021 | 9/27/2023  |
| 506 | Langley Research Center (LaRC)  | Japan Aerospace Exploration Agency (JAXA)                                 | Cooperation under the Joint Understanding on Pre-Launch Activities for the JAXA Extreme Ultraviolet High-Throughput Spectroscopic Telescope (EUVST) Epsilon Mission  | Project-Specific Agreement (PSA)        | Cooperation on the pre-launch activities of the EUVST mission, including designing and building the spacecraft system, shipping the telescope, and assembly, integration, and testing. This agreement is under the Joint Understanding with Japan.  | 9/29/2021 | 9/29/2026  |
| 507 | Ames Research Center (ARC)  | Japan Aerospace Exploration Agency (JAXA)                                 | NASA-JAXA Disaster Relief Operations Support Through UTM   | Project-Specific Agreement (PSA)        | The primary aim of this collaboration is to demonstrate the performance of AAM technologies, such as Unmanned Aircraft System Traffic Management (hereinafter referred to as "UTM"), and their integration with existing aircraft technologies, in disaster relief operations. Both parties collaborated on the design of disaster relief CONOPS, reviewed the software development plan, and identified potential updates to the USS-USS disaster response CONOPS.   | 9/30/2021 | 9/30/2023  |
| 508 | Glenn Research Center at Lewis Field (GRC), Headquarters (HQ), Johnson Space Center (JSC) | European Space Agency (ESA)   | Annex 3: Implementing Arrangement (IA) Between NASA and the European Space Agency (ESA) Concerning the Provision by ESA of Elements for NASA's Multi-Purpose Crew vehicle as a Contribution to the Offset of ESA's Responsibility for International Space Station Common System Operations Costs and to Compensate NASA for Transportation Costs and | Implementing Arrangement/Agreement (IA) | Annex 3 covers the provision of ESM-3.  | 10/6/2021 | 12/31/2024 |
| 509 | Glenn Research Center at Lewis Field (GRC), Headquarters (HQ), Johnson Space Center (JSC) | European Space Agency (ESA)   | Annex 3: Implementing Arrangement (IA) Between NASA and the European Space Agency (ESA) Concerning the Provision by ESA of Elements for NASA's Multi-Purpose Crew vehicle as a Contribution to the Offset of ESA's Responsibility for International Space Station Common System Operations Costs and to Compensate NASA for Transportation Costs and | Implementing Arrangement/Agreement (IA) | Annex 3 covers the provision of ESM-3. Annex 3 is connected with ESA-0339-0 and with Annex 2, ESA-0394-0  | 10/6/2021 | 12/31/2024 |

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| 510 | Johnson Space Center (JSC)         | Russian Federal Space Agency (Roskosmos)   | Implementing Arrangement between NASA and ROSCOSMOS of Sustaining Engineering and Maintenance for Functional Cargo Block Module in Exchange of Provision by NASA of On-orbit Stowage and Communication Services through Tracking and Data Relay Satellite System | Implementing Arrangement/Agreement (IA) | The purpose of this IA concerns sustaining engineering and maintenance for Functional Cargo Block module in exchange of provisions by NASA of on-orbit stowage and communication services through the tracking and data relay satellite system.  | 10/7/2021  | 12/31/2024 |
| 511 | Wallops Flight Facility (WFF)      | German Aerospace Center (DLR)  | Implementing Arrangement between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the Exchange of Flight-proven Sounding Rocket Component Designs for Scientific Applications                                | Project-Specific Agreement (PSA)        | Cooperation under the Framework Agreement with Germany to discuss, analyze, and improve hardware design, implementation, usage, and performance information for components that have been specially designed and tested for sounding rocket use.   | 10/13/2021 | 12/31/2025 |
| 512 | NASA Center Not Specified          | United Kingdom Space Agency (UKSA)   | MOU Between NASA and UKSA for the Provision of the Lunar Thermal Mapper for the Lunar Trailblazer Mission  | Project-Specific Agreement (PSA)        | Trailblazer is a NASA-led mission for understanding the Moon's water cycle by detecting and mapping water on the lunar surface at key targets. NASA is planning to provide the spacecraft bus, integration of the instruments onto the bus, mission operations, overall science operations, and the launch of the spacecraft. The UK Space Agency expects to provide the Lunar Thermal Mapper instrument.  | 10/18/2021 | 3/31/2031  |
| 513 | Ames Research Center (ARC)         | Tohoku University  | Non-Reimbursable Space Act Agreement Between NASA and Tohoku University for Experimental Testing of Optimized Airfoils at Mars Flight Conditions   | Project-Specific Agreement (PSA)        | The purpose of this Agreement is to experimentally test optimized airfoils under Mars flight conditions—matching Mach number and Reynolds number—at Tohoku University's Mars Wind Tunnel. Flight conditions found on Mars are very different from those on Earth; rotor operations are inherently constrained on Mars due to the difference in atmospheric conditions and gas composition. Initial computational efforts at NASA show that unconventional airfoil shapes (blade cross-sections) can yield dramatic performance improvements under Mars flight conditions, but little aerodynamic, or flight data, exists for the flight conditions experienced on Mars. This experimental testing shall validate the expected aerodynamic performance increase of using unconventional airfoil shapes for flights under Mars | 10/27/2021 | 11/4/2023  |
| 514 | Langley Research Center (LaRC)     | Germany - Wehrwissenschaftliches Institut für Werk und Betriebsstoffe (WIWeB)                  | Aeronautics Visiting Researcher  | Project-Specific Agreement (PSA)        | NASA Langley civil servant conducts materials research at WIWEB Germany  | 11/11/2021 | 11/10/2025 |
| 515 | Johnson Space Center (JSC)         | Physical Research Laboratory (PRL)   | Agreement between NASA and The Physical Research Laboratory for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Kuljeet Marhas proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 11/12/2021 | 11/12/2026 |
| 516 | Johnson Space Center (JSC)         | Okayama University   | Agreement between NASA and Okayama University for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Takafumi Niihara proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 11/12/2021 | 11/12/2026 |
| 517 | Goddard Space Flight Center (GSFC) | Government of Australia  | NASA-SmartSat CRC SAR Agreement  | Project-Specific Agreement (PSA)        | Under this Agreement, NASA and SmartSat CRC will research and propose new system and waveform design to enhance the current SAR beacon technologies. By investigating limitations of existing SAR systems and the means of extending system capabilities to provide additional services, there is opportunity for extending to broader applications in emergency management and future exploration endeavors. NASA and SmartSat CRC will investigate the potential for enhanced services to extend beyond SAR to broader emergency management. The Parties share a goal of enabling highly reliable connectivity for those who may encounter a hazardous situation while living or working in places where reliable terrestrial network coverage is not guaranteed.  | 11/16/2021 | 11/16/2024 |
| 518 | Headquarters (HQ)                  | Institute of Space and Astronautical Science (ISAS), Japan Aerospace Exploration Agency (JAXA) | NASA-JAXA Cross Support Agreement  | Project-Specific Agreement (PSA)        | This agreement between NASA and JAXA will facilitate the arranging and managing network and operations cross-support communications services between the Parties, with mission risk-reducing technical capability for bi-directional interoperability between their respective tracking assets and mutual space navigation support, as well as mission operations and ground data systems compatibility.   | 11/17/2021 | 11/17/2031 |
| 519 | Goddard Space Flight Center (GSFC) | Canadian Space Agency (CSA)  | Extension to the Soil Moisture Active Passive (SMAP) Mission   | Implementing Arrangement/Agreement (IA) | SMAP is one of the first four tier one Earth science missions recommended by the U.S. National Research Council's Earth Science Decadal Survey. SMAP is designed to enable scientists to study Earth's water, energy and carbon cycles across the entire planet. SMAP expects to employ a dedicated spacecraft with an instrument suite that is planned for launch into a near-polar, sun-synchronous orbit.   | 11/18/2021 | 9/30/2023  |

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| 520 | Goddard Space Flight Center (GSFC) | The Bureau of Meteorology of Australia    | Loan Agreement between NASA and Australian Bureau of Meteorology on the Global Precipitation Measurement (GPM) Mission.   | Project-Specific Agreement (PSA)        | NASA GSFC to loan the Australian Bureau of Meteorology (BOM) a NASA Micro Rain Radar (MRR Pro) for BOM to perform precipitation measurements in the Southern Ocean, a critical region lacking in-situ validation for precipitation estimates and in which aerosol, cloud, and precipitation interactions and processes are poorly understood, hindering NASA's capability to predict future climate in this region. BOM will provide all data from the loaned radar to NASA, which will support GPM.   | 11/18/2021 | 11/18/2024 |
| 521 | Ames Research Center (ARC)         | German Aerospace Center (DLR)             | Implementing Arrangement between NASA and The German Aerospace Center for Fundamental Collaboration on the Development of Software Libraries for the use of Quantum Computing in Space Applications   | Implementing Arrangement/Agreement (IA) | The DLR-SC group and NASA's QuAIL group will develop quantum computing tools for assessing the potential of quantum computing for space exploration applications. Both parties expect to jointly develop a software library to be used for space exploration applications. This library shall be a collection of software tools for the implementation of quantum algorithms.  | 11/19/2021 | 1/17/2025  |
| 522 | Jet Propulsion Laboratory (JPL)    | Japan Aerospace Exploration Agency (JAXA) | NASA-JAXA Agreement for High-Power Testing Capabilities for JAXA's New Deep Space Antenna   | Project-Specific Agreement (PSA)        | In this Agreement, JAXA and NASA will jointly coordinate with two U.S. vendors to test the performance of the JAXA transmitter components at NASA test facilities. In return, JAXA will provide NASA with commensurate tracking time on its new deep space antenna, Misana. The required testing of the transmitter components and the JAXA provisioning of time on its Misana antenna will be conducted quid-pro-quo on a no-exchange-of-funds basis.   | 11/25/2021 | 8/26/2023  |
| 523 | Headquarters (HQ)                  | Japan Aerospace Exploration Agency (JAXA) | Agreement Between the National Aeronautics and Space Administration of the United States of American and The Japan Aerospace Exploration Agency for Cooperation on the JAXA-led Smart Lander for Investigating Moon (SLIM) mission.   | Project-Specific Agreement (PSA)        | The Institute of Space and Astronautical Science (ISAS) of JAXA is developing the SLIM mission. The SLIM lander aims to achieve a small scale, light weight probe system and pinpoint landing technology. NASA's planned contribution to this mission includes a laser retroreflector array (LRA), Deep Space Network (DSN) support services, and coordination with the NASA Lunar Reconnaissance Orbiter (LRO).   | 12/7/2021  | 12/31/2028 |
| 524 | Goddard Space Flight Center (GSFC) | European Space Agency (ESA)               | Amendment 6: Cooperation Under Solar Terrestrial Science Program (STSP) (CLUSTER I and SOHO)  | Project-Specific Agreement (PSA)        | Amendment 6: The Solar Terrestrial Science Programme (STSP) is composed of two missions: Cluster and SOHO. The combination will enhance the scientific return beyond the objectives of the individual missions. Cluster mission is to investigate small-scale structure in the Earth's plasma environment. Spacecraft SOHO - Solar and Heliospheric Observatory mission is developed by ESA to develop the launch of Ariane V. Expiration date was one year past nominal mission (Dec 2, 1998), but due to mission problems and loss of Cluster, agreement was in limbo until formally extended on Jan 16, 2003. | 12/17/2021 | 12/31/2026 |
| 525 | Goddard Space Flight Center (GSFC) | Swiss Space Office (SSO)                  | Extension to the Agreement between NASA and the Swiss Space Office on the Solar Terrestrial Observatory (STEREO)  | Project-Specific Agreement (PSA)        | Cooperation in the Solar Terrestrial Observatory (STEREO) mission, a mission to address the origin, evolution and interplanetary consequences of the coronal mass ejection.  | 12/18/2021 | 3/31/2024  |
| 526 | All NASA Centers                   | Canadian Space Agency (CSA)               | Extension 10: Mars Exploration Program  | Project-Specific Agreement (PSA)        | Extension 10 of an existing Mars cooperation agreement.  | 12/20/2021 | 12/31/2027 |
| 527 | Headquarters (HQ)                  | European Space Agency (ESA)               | Amendment #2 - Advanced Telescope for High Energy Astrophysics (ATHENA)   | Project-Specific Agreement (PSA)        | Extension of study agreement to determine NASA contributions to ESA led ATHENA missions  | 12/21/2021 | 12/31/2023 |
| 528 | Johnson Space Center (JSC)         | Japan Aerospace Exploration Agency (JAXA) | JAXA Calorimetric Electron Telescope (CALET) Mission  | Project-Specific Agreement (PSA)        | JAXA launched the CALET instrument to the International Space Station on an HTV for joint science.   | 12/21/2021 | 12/31/2024 |
| 529 | Goddard Space Flight Center (GSFC) | Japan Aerospace Exploration Agency (JAXA) | Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration and the Japan Aerospace Exploration Agency For Space Communication and Navigation Near Space Network Services in Support of the JAXA H-IIA Launch Vehicle for SLIM/XRISM Mission | Project-Specific Agreement (PSA)        | This Agreement is for the purpose of providing the JAXA-requested support for Near Space Network ("NSN") Tracking and Data Relay Satellite ("TDRS") services for one launch of the H-IIA launch vehicle (flight No. 47) for the Smart Lander for Investigating Moon ("SLIM") and X-Ray Imaging and Spectroscopy Mission ("XRISM") (the "H-IIA SLIM/XRISM Mission") launching from the Tanegashima Space Center in Japan.   | 12/22/2021 | 1/31/2025  |

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| 530 | Jet Propulsion Laboratory (JPL)    | Japan Aerospace Exploration Agency (JAXA)  | NASA-JAXA Collaboration on Very Long Baseline Interferometry (VLBI) observations between JAXA's Misasa and NASA's Deep Space Network (DSN) stations | Project-Specific Agreement (PSA)        | Collaborative agreement between NASA and JAXA, for the two agencies to carry out Very Long Baseline Interferometry (VLBI) observations between JAXA's Misasa and NASA's DSN stations in order to jointly define a set of celestial and terrestrial reference frames, which would enhance collaboration among the agencies.  | 12/23/2021 | 7/11/2031  |
| 531 | Goddard Space Flight Center (GSFC) | Poland - Minister of Education and Science of the Republic of Poland                                   | Agreement Between the National Aeronautics and Space Administration and the Minister of Education and Science of the Republic of Poland             | Project-Specific Agreement (PSA)        | Poland will provide one of ten instruments on the IMAP mission. IMAP is a NASA mission to provide the first comprehensive in situ and remote global observations to discover the fundamental physical processes that control the solar system's evolving space environment.   | 12/30/2021 | 12/30/2028 |
| 532 | Jet Propulsion Laboratory (JPL)    | National Centre for Space Studies (CNES)   | Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) on the Mars Science Laboratory (MSL) Mission            | Implementing Arrangement/Agreement (IA) | Implementing Arrangement (IA) between NASA and CNES in providing significant portions of the Sample Analysis at Mars (SAM) and the Laser-Induced Remote Sensing for Chemistry and Micro-Imaging (ChemCam) payloads on the NASA Mars Science Laboratory (MSL) mission. This IA is under the U.S.-French Umbrella.  | 1/11/2022  | 12/31/2025 |
| 533 | Goddard Space Flight Center (GSFC) | Max Planck Institute for Astronomy (MPIA)  | Letter of Agreement Concerning Cooperation on the Nancy Grace Roman space Telescope   | Project-Specific Agreement (PSA)        | MPIA to provide hardware for the Roman CGI instrument.  | 1/11/2022  | 6/30/2037  |
| 534 | Johnson Space Center (JSC)         | ETH Zurich   | Agreement between NASA and ETH Zurich for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Dr. My Riebe proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 1/13/2022  | 1/13/2027  |
| 535 | Johnson Space Center (JSC)         | European Space Agency  | European Space Agency (ESA) contributions to the NASA-sponsored Complement of Integrated Protocols for Human Exploration Research (CIPHER)          | Implementing Arrangement/Agreement (IA) | The annex details NASA and ESA's participation and integration in CIPHER, including collaboration on experiments such as routine ultrasound, vascular calcium, spatial cognition, space physics CEVIS, and iSafe Vision and Vascular Tests.   | 1/13/2022  | 12/31/2030 |
| 536 | Johnson Space Center (JSC)         | Canadian Space Agency (CSA), European Space Agency, National Space Development Agency of Japan (NASDA) | Letter Agreement: NASA-sponsored Complement of Integrated Protocols for Human Exploration Research "CIPHER"   | Project-Specific Agreement (PSA)        | Agreement between NASA and ESA regarding the support of the ESA participation and integration in the Complement of Integrated Protocols for Human Exploration Research (CIPHER) Complement. ESA will provide hardware and NASA will provide orbit crew time for CIPHER studies.   | 1/13/2022  | 12/31/2030 |
| 537 | NASA Center Not Specified          | Japan Aerospace Exploration Agency (JAXA)  | NASA JAXA Letter of Agreement for the Dragonfly Mission   | Project-Specific Agreement (PSA)        | Dragonfly will deliver a relocatable rotorcraft lander, complete with instrument suite, to the surface of Saturn's moon, Titan, to explore Titan's prebiotic chemistry and habitability. The lander will carry a mass spectrometer, a gamma-ray and neutron spectrometer, a sampling system, a suite of cameras, and a geophysics and meteorology package. JAXA has expressed interest in providing a seismometer that would constitute part of the Dragonfly Geophysics and Meteorology instrument | 1/20/2022  | 1/20/2027  |
| 538 | Headquarters (HQ)                  | Canadian Space Agency (CSA)  | NASA-CSA Lunar Exploration Accelerator Program (LEAP) Lunar Rover Mission (LRM) Implementing Arrangement  | Implementing Arrangement/Agreement (IA) | CSA and NASA are collaborating on CSA's Lunar Rover Mission (LRM) and science payloads, to be delivered via Commercial Lunar Payload Services (CLPS). CSA's lunar rover will carry two scientific instrument payloads – one American and one Canadian. IA will expire one year after commissioning of CSA LRM.  | 1/20/2022  | 12/31/2027 |
| 539 | Johnson Space Center (JSC)         | Brazil - Museu Nacional  | Agreement between NASA and Museu Nacional/UFRJ for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Amanda Tosi proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 1/25/2022  | 1/25/2027  |

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| 540 | Johnson Space Center (JSC)                           | Open University                           | Agreement between NASA and The Open University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Martin Suttle proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.   | 1/25/2022 | 1/25/2027  |
| 541 | NASA Center Not Specified                            | National Centre for Space Studies (CNES)  | Implementing Arrangement between NASA and CNES on the Dragonfly Mission  | Implementing Arrangement/Agreement (IA) | NASA's Dragonfly mission will deliver a relocatable rotorcraft lander, complete with instrument suite, to the surface of Saturn's moon, Titan, to investigate the moon's habitability and search for signatures of life. CNES will provide the Gas Chromatograph for the Dragonfly Mass Spectrometer.   | 1/25/2022 | 1/25/2047  |
| 542 | Headquarters (HQ)                                    | European Space Agency                     | NASA-ESA PROSPECT MOU  | Project-Specific Agreement (PSA)        | ESA and NASA are collaborating on ESA's Package for Resource Observation and In-Situ Prospecting For Exploration, Characterization, and Testing (PROSPECT) mission, by delivering this science payload to the lunar surface via Commercial Lunar Payload Services (CLPS).   | 1/26/2022 | 6/30/2031  |
| 543 | Headquarters (HQ)                                    | European Space Agency                     | NASA-ESA Retroreflector (MPAc) MOU   | Project-Specific Agreement (PSA)        | ESA and NASA are collaborating on ESA's Retroreflector, by delivering this science payload to the lunar surface via Commercial Lunar Payload Services (CLPS).   | 1/26/2022 | 6/30/2031  |
| 544 | Jet Propulsion Laboratory (JPL)                      | University of Oslo                        | Mars 2020 Radar Imager for Mars Subsurface Experiment (RIMFAX)   | Project-Specific Agreement (PSA)        | The University of Oslo provide the RIMFAX instrument for NASA's Mars 2020 Perseverance rover.   | 2/7/2022  | 6/30/2024  |
| 545 | Jet Propulsion Laboratory (JPL)                      | Indian Space Research Organization (ISRO) | Agreement between the National Aeronautics and Space Administration (NASA) and the Indian Space Research Organisation (ISRO) for Deep Space Network (DSN) Support For ISRO's Chandrayaan-3 Lunar Lander and Chandrayaan-2 Lunar Orbiter Missions | Project-Specific Agreement (PSA)        | This reimbursable Agreement is for support requested from NASA by ISRO for the Chandrayaan-3 and Chandrayaan-2 missions. NASA will assist ISRO by providing navigation support as well as Deep Space Network (DSN) and DSN scheduling services to further ISRO's objectives of achieving Earth-to-Moon transfer orbit, navigation to the Moon, Lunar Orbit Insertion, a soft landing on a pre-defined lunar site, and transfer of data regarding scientific studies of the lunar surface. | 2/10/2022 | 2/10/2025  |
| 546 | Jet Propulsion Laboratory (JPL)                      | D-Wave Systems Inc.                       | Amendment and Extension 4: Space Act Agreement Between NASA and D-Wave Systems Inc., as Amended, for Adiabatic quantum Computing Fabrication Process Development   | Project-Specific Agreement (PSA)        | Amendment and Extension 4: Cooperation involves adiabatic quantum computing fabrication process development. Amendment will continue JPL support of the development of an Adiabatic Quantum Annealing approach to solving complex optimization problems. JPL will handle fabrication and diagnostic characterization in support of D-Wave's fabrication process development while D-Wave continues to handle the fabrication process, circuit designs and functional testing.             | 2/17/2022 | 8/31/2027  |
| 547 | Goddard Space Flight Center (GSFC),Headquarters (HQ) | Indian Space Research Organization (ISRO) | NASA-ISRO Chandrayaan-3 LRA  | Implementing Arrangement/Agreement (IA) | NASA is contributing a laser retroreflector array (LRA) to the ISRO Chandrayaan-3 lunar lander mission.   | 2/25/2022 | 2/25/2028  |
| 548 | Jet Propulsion Laboratory (JPL)                      | Survey of Israel (SOI)                    | Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and the State of Israel Ministry of Construction and Housing Survey of Israel (SOI) for cooperation in space geodetic research.       | Project-Specific Agreement (PSA)        | To extend current geodetic collaboration between NASA and SOI by continuing use of GPS Ground Station(s) in Israel to improve accuracy of Global and Regional Geodetic Measurements   | 3/1/2022  | 7/31/2032  |
| 549 | Ames Research Center (ARC)                           | German Aerospace Center (DLR)             | Extension 3: MOU between NASA and DLR for the SOFIA Program  | Project-Specific Agreement (PSA)        | Extension 3 for the Stratospheric Observatory for Infrared Astronomy (SOFIA) MOU agreement, an airborne observatory developed and operated by NASA in partnership with the German Space Agency, DLR.  | 3/2/2022  | 12/31/2023 |

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| 550 | Goddard Space Flight Center (GSFC)                   | The University of Auckland                      | Agreement Between NASA and University of Auckland for Cooperation in the Aerosol Robotic Network (AERONET)  | Project-Specific Agreement (PSA)        | For the proposed arrangement, the National Aeronautics and Space Administration and the University of Auckland will establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on both global and regional scales.  | 3/7/2022  | 3/15/2029  |
| 551 | Langley Research Center (LaRC)                       | Kungliga Tekniska Hogskolan (KTH)               | Amendment to the Agreement Between the National Aeronautics and Space Administration of the United States of America and The Kungliga Tekniska högskolan (KTH) Royal Institute of Technology on Non-Linear Aeroelastic Data Cooperation                       | Project-Specific Agreement (PSA)        | Joint research is intended to better understand non-linear aeroelastic phenomena (the interaction of structural, inertia, and aerodynamic forces). NASA will test a KTH full span flutter test model in its Transonic Dynamics Tunnel at LaRC. This is continuation of cooperation that was conducted under a prior cooperative agreement.   | 3/8/2022  | 9/30/2025  |
| 552 | Jet Propulsion Laboratory (JPL)                      | National Commission on Space Activities (CONAE) | Memorandum of Understanding Between the National Aeronautics and Space Administration of the United States of America (NASA) and the Comision Nacional De Actividades Espaciales of the Argentine Republic (CONAE) For Cooperation in Space Geodetic Research | Project-Specific Agreement (PSA)        | NASA and the National Commission on Space Activities (CONAE) established a permanent geodetic ground station at the Teofilo Tabanera Space Center of CONAE in Cordoba, Argentina. These stations will contribute data to the Global Geodetic Observing System (GGOS) to improve the accuracy of global and regional geodetic measurements. This extension will continue the work for an additional 10 years, with the possibility of establishing future stations.   | 3/8/2022  | 10/26/2031 |
| 553 | Goddard Space Flight Center (GSFC),Headquarters (HQ) | German Aerospace Center (DLR)                   | Amendment to the Implementing Arrangement Between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the Collaborative Effort for Digital Beamforming Synthetic Aperture Radar Studies (CoSAR)              | Implementing Arrangement/Agreement (IA) | Cooperation on synthetic aperture radar missions   | 3/10/2022 | 3/31/2025  |
| 554 | Jet Propulsion Laboratory (JPL)                      | German Research Centre for Geosciences (GFZ)    | Amendment of the MOU between NASA and GFZ for Cooperation on the Gravity Recovery and Climate Experiment Follow-on (GRACE-Follow On) Mission  | Project-Specific Agreement (PSA)        | GRACE-FO is a continuation of the science initiated by the United States-German GRACE mission that was launched in 2002. The primary objective of GRACE-FO is to acquire critical data for tracking water movement on and beneath the Earth's surface and understanding changes in ice sheets and global sea levels. Its data will enhance studies of ocean currents and changes in the structure of solid Earth. GRACE-FO will do this by continuing the extremely high-resolution global data record of the Earth's gravity field and how it changes over time. These gravity fields assist in the study of global climatic issues by improving our understanding, among other things, of surface and deep ocean currents, lithospheric and mantle density variations, aquifer depletion, and polar ice sheet mass variations. As with the GRACE | 3/15/2022 | 12/31/2026 |
| 555 | Headquarters (HQ)                                    | Mad Science Group (MSG)                         | ANNEX 1 between NASA and Mad Science Group Inc under the Non reimbursable Space Act Umbrella Agreement for Cooperation in STEM Education and Engagement Activities Through Interactive Science Enrichment Programs  | Umbrella/Framework Agreement (UM/FW)    | To continue the partnership between NASA and the MSG Academy of Future Space Explorers (AFSE) begun in 2006, & to expand the partnership to include other STEM-based joint programming.  | 3/15/2022 | 3/14/2027  |
| 556 | Headquarters (HQ)                                    | Mad Science Group (MSG)                         | Non reimbursable Space Act Umbrella Agreement between NASA and the Mad Science Group (MSG) or Cooperation in Science, Technology, Engineering, and Mathematics (STEM) Education and Engagement Activities   | Umbrella/Framework Agreement (UM/FW)    | Purpose of this Agreement is to continue the partnership between NASA and the MSG Academy of Future Space Explorers (AFSE) begun in 2006, & to expand the partnership to include other STEM-based joint programming.   | 3/15/2022 | 3/14/2027  |
| 557 | Goddard Space Flight Center (GSFC)                   | Yonsei University                               | Aerosol Robotic Network (AERONET)   | Project-Specific Agreement (PSA)        | NASA loans one or more sun photometers and related equipment for use and participation in the AERONET program.   | 3/18/2022 | 4/22/2032  |
| 558 | Ames Research Center (ARC),Headquarters (HQ)         | Agencia Espacial Mexicana (AEM)                 | Letter of Agreement between NASA and AEM regarding cooperation on the AztechSat Constellation   | Project-Specific Agreement (PSA)        | This NASA-AEM letter of agreement under U.S. law is for cooperation on a constellation of AztechSat CubeSats, as a continuation of the technology demonstration on AztechSat-1 and also to assist a joint NASA-Department of Interior animal tracking effort.  | 3/25/2022 | 3/25/2027  |
| 559 | Headquarters (HQ)                                    | Japan Aerospace Exploration Agency (JAXA)       | NASA-JAXA Study Agreement for Lunar Rovers and Mobility Systems   | Project-Specific Agreement (PSA)        | This is an amendment and extension of a study agreement between NASA and JAXA enabling detailed technical discussions on lunar surface mobility systems, including potential rover contributions from Japan to the Artemis program.  | 3/31/2022 | 3/31/2024  |

## Active International Agreements by Signature Date (as of June 30, 2023)

|     |                            |   |  |                                      |   |           |            |
|-----|----------------------------|---|--|--------------------------------------|---|-----------|------------|
| 560 | Headquarters (HQ)          | European Space Agency                             | NASA-ESA Artemis Study Letter of Agreement   | Project-Specific Agreement (PSA)     | NASA and ESA will study, discuss and exchange the necessary information to mature each Party's understanding of possible future mutually beneficial cooperation on Artemis.   | 4/1/2022  | 4/5/2027   |
| 561 | All NASA Centers           | French National Aerospace Research Center (ONERA) | Umbrella Agreement between the National Aeronautics and Space Administration of the United States of America and the Office National d'Etudes et de Recherches Aéronautiques of France On Cooperation in Civil Aeronautics Research. | Umbrella/Framework Agreement (UM/FW) | The Parties shall identify areas of mutual interest and seek to develop new bilateral cooperative programs or projects, hereinafter referred to as "Programs," in civil aeronautics research and shall work closely together to this end.   | 4/6/2022  | 4/6/2032   |
| 562 | Johnson Space Center (JSC) | Australia - University of Adelaide                | Agreement between NASA and University of Adelaide for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Stijn Glorie proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.                | 4/8/2022  | 4/7/2027   |
| 563 | Johnson Space Center (JSC) | France - IMPMC-CNRS                               | Agreement between NASA and IMPMC-CNRS-Paris for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Maximilien Verdier-Paoletti proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator. | 4/8/2022  | 4/8/2027   |
| 564 | Kennedy Space Center (KSC) | Multilateral - European Space Agency (ESA)        | Extension of the Loan Agreement for Follow-On Procurement Spacelab Module  | Project-Specific Agreement (PSA)     | Extension of agreement of long term long of spacelab module to ESA.   | 4/8/2022  | 4/8/2028   |
| 565 | Johnson Space Center (JSC) | University of Winnipeg                            | Agreement between NASA and the University of Winnipeg for the Loan of Lunar Samples  | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Edward Cloutis proposes to use the lunar samples to undertake scientific investigations.   | 4/18/2022 | 10/31/2026 |
| 566 | Johnson Space Center (JSC) | Universitat zu Koln, University of Cologne        | Agreement between NASA and the University of Cologne (Universität zu Köln) for the Loan of Lunar Samples   | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Vera Assis Fernandes proposes to use the lunar samples to undertake scientific investigations.   | 4/18/2022 | 10/31/2026 |
| 567 | Johnson Space Center (JSC) | Universitat zu Koln, University of Cologne        | Agreement between NASA and the University of Cologne (Universität zu Köln) for the Loan of Lunar Samples   | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Carsten Muenker proposes to use the lunar samples to undertake scientific investigations.  | 4/18/2022 | 10/31/2026 |
| 568 | Johnson Space Center (JSC) | University of Glasgow                             | Agreement between NASA and the University of Glasgow for the Loan of Lunar Samples   | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Lake Daly proposes to use the lunar samples to undertake scientific investigations.  | 4/18/2022 | 10/31/2026 |
| 569 | Johnson Space Center (JSC) | Universita' degli Studi di Padova                 | Agreement between NASA and Universita' degli Studi di Padova for the Loan of Antarctic Meteorite Samples.  | Project-Specific Agreement (PSA)     | Principal Investigator Dr. Matteo Massironi proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.            | 4/18/2022 | 4/18/2027  |

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|     |                                    |   |  |   |   |           |            |
|-----|------------------------------------|---|--|---|---|-----------|------------|
| 570 | Jet Propulsion Laboratory (JPL)    | Italian Space Agency (ASI)  | Implementing Arrangement between NASA and ASI for Cooperation on the Surface Biology and Geology Phase A Study   | Implementing Arrangement/Agreement (IA) | NASA and ASI are cooperating on Phase A studies for the Earth System Observatory (ESO) Surface Biology and Geology (SBG) mission. The IA only covers the Phase A period and does not signify a commitment by either Implementing Agency for further mission formulation or implementation.  | 4/19/2022 | 4/19/2025  |
| 571 | Goddard Space Flight Center (GSFC) | National Centre for Scientific Research (CNRS), University of Lille 1 | AERONET with CNRS  | Project-Specific Agreement (PSA)        | NASA and CNRS will establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on both global and regional scales. Another objective of this cooperation is to encourage scientists from both NASA and CNRS to develop research programs using data collected by CNRS along with aerosol data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.   | 5/13/2022 | 12/31/2032 |
| 572 | Headquarters (HQ)                  | New Zealand - New Zealand Space Agency (NZSA)                         | Non-Reimbursable Space Act Agreement between NASA and the Ministry of Business, Innovation and Employment, acting through its business unit the New Zealand Space Agency, for Collaboration on Cislunar Space Situational Awareness Research                                       | Project-Specific Agreement (PSA)        | The CAPSTONE mission offers a unique opportunity to observe a small object (12U CubeSat, ~25 kg) that has a known trajectory, thereby providing important and relevant data on the observation capabilities of well-characterized optical telescopes equipped with SSA enhancements, looking for spacecraft near the Moon. Under this collaboration, NZSA will use optical telescopes at the University of Canterbury and at the University of New South Wales or Earth-based cislunar observation of NASA's CAPSTONE spacecraft in the near vicinity of the Moon. The objective is to demonstrate a cislunar optical sensor containing fourth-order adaptive optics with new innovative optical coherence discriminators to improve the detection of artificial satellites in the region of 0.24 to 4 degrees from the limb of the Moon. NASA intends to provide | 5/24/2022 | 5/30/2025  |
| 573 | Johnson Space Center (JSC)         | Monash University   | Agreement between NASA and Monash University for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Andrew Tomkins proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 5/24/2022 | 5/23/2027  |
| 574 | Headquarters (HQ)                  | German Aerospace Center (DLR)   | NASA-DLR Dragonfly Mission Implementing Arrangement  | Implementing Arrangement/Agreement (IA) | NASA and DLR are collaborating on the Dragonfly mission to Titan. DLR is providing instrumentation and data analysis for the Entry Aerosciences Measurements part of the EDL system.  | 5/25/2022 | 5/25/2042  |
| 575 | Goddard Space Flight Center (GSFC) | Swedish National Space Board (SNSB)                                   | Extension #2 of the Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Swedish National Space Agency of the Kingdom of Sweden for Cooperation in the Testing and Analysis of Green Propulsion Technologies | Implementing Arrangement/Agreement (IA) | NASA to conduct testing of Swedish green propulsion fuel and thrusters and share the data.  | 6/5/2022  | 10/6/2023  |
| 576 | Ames Research Center (ARC)         | Belgium - Von Karman Institute for Fluid Dynamics (VKI)               | Non-Reimbursable Space Act Agreement between the National Aeronautics and Space Administration and the Von Karman Institute for Fluid Dynamics for Cooperation on Entry Systems Modeling Research  | Project-Specific Agreement (PSA)        | Under this Agreement, the NASA and VKI intend to focus on joint fundamental research related to four ESM research topics: material response, aerothermodynamics, radiation, and magnetohydrodynamics. The Parties intend to conduct this joint research through a series of joint discussions, tutorials, training, and data and software model exchanges, resulting in joint ESM related technical publications. No hardware is anticipated to be exchanged or tested under this Agreement.  | 6/8/2022  | 6/8/2027   |
| 577 | Goddard Space Flight Center (GSFC) | India - Amity University Haryana of India                             | AERONET  | Project-Specific Agreement (PSA)        | The scientific goals of the National Aeronautics and Space Administration (NASA) include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements for ground-based validation of aerosol, cloud, and other measurements taken by satellites.   | 6/14/2022 | 6/14/2032  |
| 578 | Headquarters (HQ)                  | European Space Agency   | NASA-ESA Lunar Pathfinder (LPF) MOU  | Project-Specific Agreement (PSA)        | ESA and NASA are collaborating on ESA's Lunar Pathfinder (LPF) spacecraft, by delivering this lunar communications relay to lunar orbit via Commercial Lunar Payload Services (CLPS). This MOU shall remain in force until six years from the date of launch of the LPF spacecraft.   | 6/15/2022 | 12/31/2030 |
| 579 | Headquarters (HQ)                  | European Space Agency   | Framework Agreement Between NASA and the European Space Agency (ESA) for a Strategic Partnership in Earth System Science   | Umbrella/Framework Agreement (UM/FW)    | The purpose of the Framework Agreement to define the terms and conditions under which NASA and ESA plan to conduct Earth system science cooperation within the overall framework of a strategic partnership.  | 6/15/2022 | 6/15/2032  |

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|     |  |   |  |   |  |           |            |
|-----|--|---|--|---|--|-----------|------------|
| 580 | George C. Marshall Space Flight Center (MSFC)        | Italian Space Agency (ASI)  | NASA-ASI Agreement to Conduct a Preliminary Design Study of the ASI-proposed Lunar Surface Multi-Purpose Habitation Module(s) for the Artemis Program  | Project-Specific Agreement (PSA)        | NASA-ASI Agreement to Conduct a Preliminary Design Study of the ASI-proposed Lunar Surface Multi-Purpose Habitation Module(s) for the Artemis Program. ASI will conduct the study and present its findings to NASA for consideration.  | 6/16/2022 | 6/15/2024  |
| 581 | Johnson Space Center (JSC)                           | German Aerospace Center (DLR)   | Implementing Arrangement between NASA and the German Aerospace Center for Cooperation on the Complement of Integrated Protocols for Human Exploration Research (CIPHER)  | Project-Specific Agreement (PSA)        | This IA represents DLR's contributions to the CIPHER study which falls under the umbrella agreement titled "NASA-Sponsored Complement of Integrated Protocols for Human Exploration." The IA indicates two NASA-DLR collaborations, including the spatial cognition and blood and urine sample sharing experiments.  | 6/22/2022 | 12/13/2030 |
| 582 | Goddard Space Flight Center (GSFC)                   | Korea Astronomy and Space Science Institute (KASI)                                    | Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and Korea Astronomy and Space Science Institute of the Republic of Korea for Cooperation on the Coronal Diagnostic Experiment (CODEX) | Implementing Arrangement/Agreement (IA) | Cooperation on the Coronal Diagnostic Experiment (CODEX) mission, a joint effort between NASA and KASI regarding a coronagraph instrument for use on the International Space Station (ISS) and potential future missions. The agreement covers integration of the instrument, software and electronic systems, flight of the instrument, testing activities, and data analysis activities. Supersedes KS-0064-0, KS-0064-1   | 6/29/2022 | 12/31/2027 |
| 583 | Headquarters (HQ)                                    | Belgian Centre Spatiale de Liege (CSL),Beligan Federal Science Policy Office (BELSPO) | NASA-Belgium Letter Agreement on the Ionospheric Connection Explorer (ICON) Mission  | Project-Specific Agreement (PSA)        | NASA's Science Mission Directorate is sponsoring the development of the ICON mission, a project in the Heliophysics Explorers program. The ICON mission will explore the near-Earth space environment to discover the sources of the region's remarkable variability. ICON will make a complete set of measurements needed to describe the fundamental coupling process occurring in the ionosphere, Earth's natural plasma laboratory. ICON's observations at the edge of space will provide the key physical insights needed to predict conditions in near-Earth space, and enhance understanding of the connection between Earth's weather and space weather. ICON will carry four instruments to achieve its science goals: the dual Michelson Interferometers for Global High-resolution Thermospheric Imaging (MIGHTI), a Far Ultra                        | 6/30/2022 | 6/30/2027  |
| 584 | Johnson Space Center (JSC)                           | Woodside Engineering Technologies PTY LTD.  | Reimbursable Space Act Umbrella Agreement between NASA and Woodside Energy Technologies Pty Ltd for Research in Anthropomorphic Robotic Technology Using NASA's Valkyrie Humanoid Robot.   | Umbrella/Framework Agreement (UM/FW)    | This Umbrella Agreement is for follow-on work to the previous Umbrella. Under this Umbrella NASA will continue to accelerate the maturation of robotic technology beyond the current state-of-the-art to address operational requirements for both organizations.  | 7/20/2022 | 7/25/2027  |
| 585 | Johnson Space Center (JSC)                           | Woodside Engineering Technologies PTY LTD.  | Annex 1 under the Reimbursable Space Act Umbrella Agreement (AS-0300-0) between NASA and Woodside Energy Technologies Pty Ltd for Research in Anthropomorphic Robotic Technology using NASA's Valkyrie Humanoid Robot.                                   | Umbrella/Framework Agreement (UM/FW)    | Annex 1 under the Reimbursable Space Act Umbrella Agreement (AS-0300-0) is for joint research, design, development, and testing of anthropomorphic robots and control technologies relevant to the remote mobile dexterous manipulation needed to operate effectively in remote caretaking of uncrewed and offshore energy facilities. NASA will loan Woodside an existing Valkyrie humanoid robot, with associated hardware and software, for remote manipulation control and application development. Woodside will also reimburse NASA for the development, delivery, and testing of a new anthropomorphic robot suitable for field testing at Woodside and capable of performing remote manipulation tasks relevant to Woodside operations. Umbrella Agreement: AS-0300-0  | 7/20/2022 | 7/25/2027  |
| 586 | Headquarters (HQ)                                    | University of Bern  | Extension - Agreement for the Strofio Instrument on the BepiColombo Mission  | Project-Specific Agreement (PSA)        | The University of Bern in Switzerland will provide the ion source system for the Strofio instrument that will be a part of the Serena payload on the ESA-led BepiColombo mission to Mercury.   | 7/30/2022 | 12/31/2030 |
| 587 | Headquarters (HQ)                                    | Belgian Science Policy Office   | Juno Ultra-Violet Spectrometer (UVS) Extension   | Project-Specific Agreement (PSA)        | 2022 Extension, University of Liege to provide portions of the UVS on NASA-led JUNO mission  | 8/1/2022  | 12/31/2026 |
| 588 | Langley Research Center (LaRC)                       | Japan Aerospace Exploration Agency (JAXA)   | Amendment 3: NASA-JAXA Airframe Noise Prediction Agreement   | Project-Specific Agreement (PSA)        | Amendment 3: This amendment will continue productive collaboration on effective research methods for physics-based prediction of airframe noise from civil aircraft through simulations and experimental measurements. Both parties will conduct measurements and gather data from their respective tests that will then be jointly compared and discussed. Amendment 2: The amendment will continue to address key gaps in the understanding and modeling of slat cover noise and extending that knowledge base to realistic slat configurations as well as to noise reduction concepts for slat noise. This cooperative effort will also provide vital data, which will aid the airframe noise research at both organizations and also support the global initiative focused on high fidelity simulations and measurements of airframe noise sources under the | 8/1/2022  | 7/31/2027  |
| 589 | Goddard Space Flight Center (GSFC),Headquarters (HQ) | Brazilian Space Agency (AEB)  | NASA-AEB Letter Agreement for Cooperation in Space Geodesy with emphasis in Very Long Baseline Interferometry (VLBI)   | Project-Specific Agreement (PSA)        | AEB operates ground station with NASA-loaned equipment for use in taking space geodesy measurements to contribute to global space geodetic networks  | 8/8/2022  | 8/8/2023   |

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|     |  |  |  |   |   |           |            |
|-----|--|--|--|---|---|-----------|------------|
| 590 | Goddard Space Flight Center (GSFC)   | Korea Astronomy and Space Science Institute (KASI)                                   | Amendment to the Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration and the Korea Astronomy and Space Science Institute for the Coronal Diagnostic Experiment (CODEX)  | Project-Specific Agreement (PSA)        | Reimbursable activity to support instrument development of a coronagraph to be flown on the joint NASA-KASI Coronal Diagnostic Experiment (CODEX) mission. The agreement covers labor for mission systems engineering, designs for various interfaces and components, integration, and calibration. The amendment covers additional pre-flight testing at GSFC.   | 8/9/2022  | 12/31/2025 |
| 591 | Headquarters (HQ)  | Ministry of Business, Innovation and Employment (MBIE)                               | US - New Zealand Framework Agreement   | Umbrella/Framework Agreement (UM/FW)    | This Framework Agreement (hereinafter referred to as the "Agreement") sets forth the obligations, terms and conditions for cooperation between the Parties, or their designated Implementing Agencies, in civil aeronautics research and the exploration and use of outer space for peaceful purposes in areas of common interest and on the basis of equality and mutual benefit.  | 8/9/2022  | 11/9/2032  |
| 592 | Armstrong Flight Research Center (AFRC), George C. Marshall Space Flight Center (MSFC) | Norway - University of Bergen (UIB)  | Reimbursable Space Act Agreement Between the National Aeronautics And Space Administration and the University of Bergen for the Airborne Lightning Observatory for the Fly's Eye Geostationary Lightning Mapper Simulator and Terrestrial Gamma-Ray Flashes Field Campaign | Project-Specific Agreement (PSA)        | NASA will fly three UIB Instruments (FEGS, LIP, and BGO) on a NASA ER-2 plane during the ALOFT field campaign.  | 8/17/2022 | 8/17/2025  |
| 593 | Goddard Space Flight Center (GSFC)   | Oman - University of Nizwa (UoN)   | AERONET - Aerosol Robotic Network  | Project-Specific Agreement (PSA)        | For the proposed arrangement, NASA and the University of Nizwa (UoN) (hereinafter referred to individually as "Party" or jointly as the "Parties") will establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both the United States and Oman to develop research programs using data collected by UoN along with data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.      | 8/23/2022 | 8/23/2032  |
| 594 | Johnson Space Center (JSC)   | Australian National University (ANU)   | Agreement between NASA and Australian National University for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Seann McKibbin proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.  | 8/29/2022 | 8/28/2027  |
| 595 | Glenn Research Center at Lewis Field (GRC), Headquarters (HQ)                          | Imperial College of Science Technology and Medicine (Imperial College)               | GEER Sensor Testing, Venus   | Project-Specific Agreement (PSA)        | This proposed NASA and Imperial collaboration expects to address engineering and scientific issues related to the development of seismic sensors capable of operating on the surface of Venus. NASA plans to expose Imperial's seismic sensors to Venus-like conditions in the Glenn Research Center's (GRC) Glenn Extreme Environments Rig (GEER) facility. The exposure of the seismic sensors should provide valuable information to the suitability of said sensor as a component of a potential future Venus seismometer.  | 9/1/2022  | 9/1/2028   |
| 596 | Headquarters (HQ)  | Ministry of Education, Culture, Science, and Technology for the Government of Belize | GLOBE with MoECST  | Project-Specific Agreement (PSA)        | The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.  | 9/8/2022  | 9/8/2100   |
| 597 | Johnson Space Center (JSC)   | Canadian Space Agency (CSA)  | NASA-CSA Technical Understanding: PowerBlade/MicroPrep Technology Biological Sample Preparation  | Project-Specific Agreement (PSA)        | The agreement indicates the role of CSA to loan NASA one PowerBlade unit for a two year period and 25 functional protein purification microfluidic cartridges (MCs) and 25 MCs for total DNA purification from human blood samples.   | 9/12/2022 | 12/31/2024 |
| 598 | Headquarters (HQ)  | National Centre for Space Studies (CNES)   | NASA-CNES Lunar Surface Electromagnetic Experiment (LuSEE) Agreement   | Implementing Arrangement/Agreement (IA) | CNES is contributing a Search Coil Magnetometer (SCM) to the LUSEE payload, that will be on the NASA CLPS "CP-12" Draper delivery.  | 9/20/2022 | 9/20/2032  |
| 599 | George C. Marshall Space Flight Center (MSFC)  | IHI Aerospace Co., Ltd. (IA)   | Non-Reimbursable Agreement between NASA and IHI Aerospace Co., Ltd. for Research in High-Temperature Plasma-Magnetic Coil Interactions   | Project-Specific Agreement (PSA)        | IHI Aerospace Co., Ltd. (IA), in conjunction with Kyushu University, have conducted high-fidelity research into high-temperature plasma and magnetic coil interactions for advanced propulsion. Both IA and NASA are investigating similar fundamental research areas with complimentary approaches that, if compared, may give more confidence to those approaches when they yield similar results. Working in parallel, with frequent correspondence, is expected to help the Parties develop a deeper understanding of high temperature plasma interactions with magnetic coils. As part of this collaboration, NASA and IA intend to share research data with the goal of better understanding pulsed high-temperature plasma interactions with magnetic coils. | 9/21/2022 | 10/11/2025 |

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|     |   |  |  |   |  |            |            |
|-----|---|--|--|---|--|------------|------------|
| 600 | Goddard Space Flight Center (GSFC)                                  | Italian Space Agency (ASI)   | Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic for Cooperation on Space Geodesy   | Implementing Arrangement/Agreement (IA) | IA under the US-Italy Framework Agreement. NASA and ASI will partner on the development of space geodetic techniques, data sharing, and other related work.  | 9/21/2022  | 9/21/2032  |
| 601 | Jet Propulsion Laboratory (JPL)                                     | National Centre for Space Studies (CNES)   | Second Amendment to the Implementing Arrangement between NASA and CNES for Cooperation on the Surface Water and Ocean Topography (SWOT) Mission  | Implementing Arrangement/Agreement (IA) | Second Amendment to the Implementing Arrangement (IA) Between NASA and CNES. NASA plans to provide the Payload Module, Ka-band Radar Interferometer (KaRIn), Microwave Radiometer (MR) with its antenna, Laser Retroreflector Array (LRA), Global Positioning System receiver package, launch services, and ground segment elements. The National Centre for Space Studies (CNES) plans to provide the spacecraft bus, KaRIn Radio Frequency Unit (RFU), nadir altimeter, Doppler Orbitography and Radiopositioning Integrated by Satellite (DORIS) receiver package, and ground segment elements. | 9/26/2022  | 6/15/2032  |
| 602 | Headquarters (HQ)   | University of Bern   | NASA-University of Bern: Laser Ablation Ionization Mass Spectrometer (LIMS) instrument delivery on CLPS  | Project-Specific Agreement (PSA)        | LIMS is an analytical tool to support field measurements and analyze regolith properties, consisting of a miniature reflectron-type Time-of-Flight (TOF) mass analyzer and pulsed laser system. LIMS is expected to provide chemical analysis of lunar soils and high quality in-situ solids. LIMS is expected to be delivered to the Moon via NASA's Commercial Lunar Payload Services (CLPS) program. This flight is expected to be a technology demonstration of LIMS to further optimize the instruments' in-situ data analysis and concept of operations to enable a future Artemis mission.  | 10/8/2022  | 10/8/2032  |
| 603 | Jet Propulsion Laboratory (JPL)                                     | Swiss Federal Institute of Technology Zurich of the Swiss Confederation (ETH-Zurich) | Seismic Experiment for Interior Structure (SEIS) instrument on NASA's Interior Exploration using Seismic Investigations, Geodesy, and Heat Transport (InSight) mission   | Project-Specific Agreement (PSA)        | NASA-the Swiss Federal Institute of Technology - Zurich (ETHZ), represented by Prof. Domenico Giardini, Institute of Geophysics, InSight Agreement: ETHZ is providing electronic components on the CNES-led Seismic Experiment for Interior Structure (SEIS) instrument for the NASA-led Interior Exploration using Seismic Investigations, Geodesy, and Heat Transport (InSight) mission.   | 10/13/2022 | 7/1/2024   |
| 604 | Ames Research Center (ARC), Armstrong Flight Research Center (AFRC) | Korea Aerospace Research Institute (KARI)  | NASA-KARI Cooperation on Advanced Air Mobility   | Implementing Arrangement/Agreement (IA) | Air transportation systems are facing new challenges as novel vehicle types, missions, and operations enter the market. NASA and KARI are undertaking field demonstrations for AAM capabilities in their respective countries. Collaboration between the two agencies is needed to develop requirements for an Advanced Air Mobility ecosystem and integration with Air Navigation Service Providers to enable this diverse set of operations in a scalable, flexible, and resilient manner that ensures safety and security for both existing and new users.                                      | 10/17/2022 | 10/17/2027 |
| 605 | Armstrong Flight Research Center (AFRC)                             | German Aerospace Center (DLR)  | Extension #2 to Implementing Arrangement (IA) Between NASA and the German Aerospace Center for Experimental Optical Methods Applied to Rotorcraft.   | Implementing Arrangement/Agreement (IA) | The purpose of this extension is to continue this productive collaboration and to allow for in-person attendance at hover tests and optimization tests as well as to jointly report results. Under Framework Agreement between NASA and the German Aerospace Center on Cooperation IN Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes (signed 12/8/2010)  | 10/19/2022 | 12/31/2024 |
| 606 | NASA Center Not Specified   | Canadian Space Agency (CSA)  | Joint Study on Potential Lunar Surface Cooperative Activities Implementing Arrangement   | Implementing Arrangement/Agreement (IA) | IA under the 2009 U.S.-Canada Framework Agreement. Description: Establishes the role and responsibilities of the Implementing Agencies and provisions under which they plan to cooperate on a NASA-CSA study on potential lunar surface exploration activities.  | 11/4/2022  | 11/4/2027  |
| 607 | Johnson Space Center (JSC)  | European Space Agency  | Cooperation on Science and Sample Management of The Mars Sample Return Campaign, MSR   | Project-Specific Agreement (PSA)        | NASA-ESA agree to Mars sample science principals   | 11/7/2022  | 9/30/2036  |
| 608 | Jet Propulsion Laboratory (JPL)                                     | India - Indian Institute of Technology, Delhi (IITD)                                 | Agreement between the National Aeronautics and Space Administration of the United States of America and the India Institute of Technology - Delhi Concerning Cooperation on Air Quality Ground Monitoring to Support the Multi-Angle Imager for Aerosols | Project-Specific Agreement (PSA)        | IITD will host NASA instruments to collect data to contribute to the MAIA mission.   | 11/9/2022  | 11/9/2032  |
| 609 | Goddard Space Flight Center (GSFC)                                  | Instituto Nazionale di Astrofisica (INAF)  | Letter Agreement Between NASA and the National Institute of Astrophysics of the Italian Republic to cooperate on pre-flight testing of the Coronal Diagnostic Experiment   | Project-Specific Agreement (PSA)        | INAF will provide thermal vacuum and calibration facilities for the coronagraph and use the optical payload systems in Torino, Italy to provide thermal verification prior to the flight of the coronagraph.   | 11/10/2022 | 11/10/2029 |

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|     |                                    |  |  |   |   |            |            |
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| 610 | Langley Research Center (LaRC)     | French National Aerospace Research Center (ONERA)                    | Implementing Arrangement between NASA and ONERA on Urban Air Mobility Acoustic Duct Liners   | Implementing Arrangement/Agreement (IA) | This implementing arrangement supports cooperation in modeling the acoustics of ducted rotors with optimized liners. This work will also compare NASA and ONERA liner design capabilities. This cooperation will further NASA's understanding of how to reduce noise for Urban Air Mobility Vehicles. This implementing arrangement will remain in force for three years. | 11/14/2022 | 11/14/2025 |
| 611 | Langley Research Center (LaRC)     | French National Aerospace Research Center (ONERA)                    | Implementing Arrangement Between NASA and ONERA on Comparing Computational Fluid Dynamics Solvers for Broadband Noise Prediction   | Implementing Arrangement/Agreement (IA) | Umbrella Agreement between the National Aeronautics and Space Administration of the United States of America and the Office National d'Etudes et de Recherches Aéropatiales of France on Cooperation in Civil Aeronautics Research  | 11/15/2022 | 11/15/2025 |
| 612 | Langley Research Center (LaRC)     | Delft University of Technology (DUT)                                 | Extension of Non-Reimbursable International Space Act Agreement Between NASA and Delft University of Technology for Fundamental Research in the Area Of Solar Sailing Astroynamics   | Project-Specific Agreement (PSA)        | The Parties are each conducting complementary research related to architectural concepts and scientific applications of solar sailing.  | 11/15/2022 | 11/15/2025 |
| 613 | Johnson Space Center (JSC)         | University of Glasgow  | Agreement between NASA and the University of Glasgow, UK, for the Loan of GENESIS Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Luke Daly proposes to use the GENESIS solar wind samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic GENESIS solar wind sample curator at JSC and approved by the curator.  | 11/16/2022 | 11/16/2027 |
| 614 | Langley Research Center (LaRC)     | Canada - University of Sherbrooke (UdeS)                             | NASA - University of Sherbrooke Revolutionary Vertical Lift Technology Project   | Project-Specific Agreement (PSA)        | NASA and UdeS intend to conduct a series of measurements on airfoils with the goal of improving fundamental understanding of noise generation by generic airfoil shapes. Tests include studies of noise generation for variations in Reynolds number, surface roughness, trailing edge bluntness, and airfoil profile. Data will be shared publicly.                      | 11/17/2022 | 11/17/2026 |
| 615 | Goddard Space Flight Center (GSFC) | Radio Research Agency of Korea                                       | Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Radio Research Agency of the Republic of Korea for Cooperation on the Interstellar Mapping and Acceleration Probe Active Link for Real Time (I-ALiRT) Service   | Project-Specific Agreement (PSA)        | To cooperate on the Interstellar Mapping and Acceleration Probe Active Link for Real Time (I-ALiRT) service, a space weather monitoring service to enable new ways of forecasting space weather by streaming real-time observations of conditions headed toward Earth to operators on the ground.   | 11/29/2022 | 11/29/2032 |
| 616 | Headquarters (HQ)                  | National Centre for Space Studies (CNES)                             | NASA-CNES Farside Seismic Suite (FSS) instrument delivery on CLPS  | Implementing Arrangement/Agreement (IA) | FSS instrument, with a contribution of a seismometer by CNES, is expected to be delivered to the lunar surface on the CLPS CP-12 2025 delivery to Schrödinger Basin by Draper   | 11/30/2022 | 11/30/2028 |
| 617 | Headquarters (HQ)                  | Ege University   | NASA-Ege University Visiting Researcher Agreement (VRA)  | Project-Specific Agreement (PSA)        | Two researchers to go to JSC, funded by Fulbright, to work on meteorite sample analysis.  | 12/2/2022  | 12/31/2023 |
| 618 | Johnson Space Center (JSC)         | Ministry for Education, Culture, Sports, Science & Technology (MEXT) | Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Culture, Sports, Science, and Technology of Japan Concerning Cooperation on the Civil Lunar Gateway Related to a Crew Opportunity, Habitation Capability Infrastructure Functions and Logistics Resupply | Implementing Arrangement/Agreement (IA) | MEXT's provision of the Habitation Capability Infrastructure Functions (I-Hab and Halo components) and Logistics Resupply (one HTV-XG mission to Gateway). NASA's provision of a crew opportunity to the Gateway. This IA is under the NASA-Japan Gateway MOU.  | 12/5/2022  | 12/31/2100 |
| 619 | Jet Propulsion Laboratory (JPL)    | Germany - German Aerospace Center (DLR)                              | Amendment and Extension 3: Agreement for the Mars Science Laboratory (MSL) Radiation Assessment Detector (RAD) Instrument  | Project-Specific Agreement (PSA)        | DLR provided the RAD instrument for NASA's MSL mission  | 12/6/2022  | 12/31/2030 |

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| 620 | Headquarters (HQ)                                  | Italian Space Agency (ASI)   | Memorandum of Understanding (MOU) Between NASA and Agenzia Spaziale Italia (ASI) Concerning the Juno Mission   | Project-Specific Agreement (PSA)        | This Memorandum of Understanding (MOU) covers cooperation between NASA and the Italian Space Agency (ASI) on the Juno mission to Jupiter. ASI is providing the Jovian Infrared Auroral Mapper (JIRAM) and Ka-Band Transponder (Ka-T) instruments.   | 12/7/2022  | 12/31/2026 |
| 621 | Jet Propulsion Laboratory (JPL)                    | Germany - German Aerospace Center (DLR)                              | Amendment 2: Implementing Arrangement for Cooperation on the Interior Exploration of Seismic Investigations, Geodesy and Heat Transport (INSIGHT) Mission  | Implementing Arrangement/Agreement (IA) | DLR provided an instrument for the NASA spacecraft  | 12/9/2022  | 12/31/2027 |
| 622 | Headquarters (HQ)                                  | Korea Astronomy and Space Science Institute (KASI)                   | NASA-KASI Lunar Space Environment Monitor (LUSEM) instrument delivery on CLPS  | Implementing Arrangement/Agreement (IA) | LUSEM instrument by KASI is expected to be delivered to the lunar surface on the CLPS CP-11 2024 delivery to Reiner Gamma by Intuitive Machines.  | 12/9/2022  | 12/9/2028  |
| 623 | Johnson Space Center (JSC)                         | European Space Agency  | HERA - Enivhab Letter of Agreement   | Implementing Arrangement/Agreement (IA) | This agreement will enable an analog experiment exchange between the ESA :envihab testing facility in Cologne, Germany and the NASA ground analog, known as HERA, at JSC.   | 12/13/2022 | 12/31/2030 |
| 624 | Headquarters (HQ), Jet Propulsion Laboratory (JPL) | University of Zurich (UZH)   | 2nd Extension to NASA-University of Zurich (UZH) Reimbursable Agreement  | Project-Specific Agreement (PSA)        | Through this Agreement and its Amendments, NASA will, on a reimbursable basis, develop and deliver to UZH an aircraft-compatible version of the sensor head that is part of the existing Compact Wide Imaging Spectrometer (CWIS) currently tested at JPL. NASA will build, calibrate, and deliver the sensor head to UZH. For clarity and traceability, this new development is designated CWIS-11. UZH will then integrate the CWIS-11 imaging spectrometer sensor head onto a suitable research aircraft.  | 12/20/2022 | 5/31/2027  |
| 625 | Johnson Space Center (JSC)                         | Japan Aerospace Exploration Agency (JAXA)                            | Extension #2: NASA-JAXA Letter of Agreement for Phase II of a Study on JAXA's Space Debris Bread Board Model   | Implementing Arrangement/Agreement (IA) | This is Phase II of a study involving JAXA's Space Debris Bread Board Model (SDM BBM) as part of the development of NASA's Multi-Acoustic Conductive-grid Sensor (MACS).  | 12/21/2022 | 9/30/2023  |
| 626 | Ames Research Center (ARC)                         | Israel - Technion Research and Development Foundation Ltd (TRDF)     | Extension of the Non-Reimbursable International Space Act Agreement Between NASA and the Technion Research and Development Foundation Ltd for Suborbital Research and Microgravity Technology Demonstrations of the Fluidic Telescope Experiment (FLUTE) | Project-Specific Agreement (PSA)        | FLUTE aims to test innovative approaches and concepts for space-based astronomy by developing a new method for fabricating high-quality optical components in space using fluidic shaping in a microgravity environment. Under this Agreement, NASA and TRDF intend to design and execute experiments aimed at validating these innovative approaches using parabolic microgravity flights.   | 12/22/2022 | 5/1/2024   |
| 627 | Langley Research Center (LaRC)                     | Korea Republic of - Korea Institute of Science and Technology (KIST) | Extension of the Fully Reimbursable Space Act Umbrella Agreement Between NASA and the Korea Institute of Science and Technology (KIST) Regarding 4U Nanomaterial Testing   | Project-Specific Agreement (PSA)        | Fully Reimbursable Space Act Umbrella Agreement: Test new nanomaterial composites provided by South Korea/Korean Institute of Science and Technology (KIST). KIST is developing lightweight structural, multifunctional composites for extreme environments in aerospace applications. New nanomaterial composites to be fabricated will be ultra lightweight and ultra high strength materials with ultra high electrical conductivity and ultra high thermal conductivity to cover various extreme environmental conditions. All four "ultra high" aspects will be referred to as "4U."   | 12/22/2022 | 12/31/2025 |
| 628 | Goddard Space Flight Center (GSFC)                 | Japan Aerospace Exploration Agency (JAXA)                            | Magnetospheric Multiscale Mission (MMS)  | Project-Specific Agreement (PSA)        | NASA and the Japan Aerospace Exploration Agency (JAXA), have a mutual interest in cooperating on the Magnetospheric Multiscale (MMS) mission. The purpose of this letter is to establish a Letter of Agreement (hereinafter, "the Agreement") between NASA and JAXA (hereinafter, "the Parties") to accommodate the participation of JAXA researchers, Dr. Yoshifumi Saito and Dr. Toshifumi Mukai, in the MMS mission. NASA's Science Mission Directorate (SMD) is sponsoring the development of the MMS mission, which is a project in the Solar TeTerestrial Probes (STP) program. The MMS mission will explore the Earth's magnetosphere with a constellation of four spacecraft with identical scientific payloads. Measurements made by these four spacecraft will help to explain the fundamental physical processes involved with | 12/28/2022 | 9/30/2026  |
| 629 | George C. Marshall Space Flight Center (MSFC)      | Japan Aerospace Exploration Agency (JAXA)                            | Chromospheric LAyer Spectro-Polarimeter (CLASP) 2  | Project-Specific Agreement (PSA)        | Chromospheric LAyer Spectro-Polarimeter (CLASP) 2 is a solar physics experiment to be launched on a NASA sounding rocket, and is a follow-on to the highly successful Chromospheric Lyman-Alpha Spectro-Polarimeter (CLASP) sounding rocket mission of 2015.  | 12/28/2022 | 12/31/2032 |

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| 630 | Johnson Space Center (JSC)              | Natural History Museum                                | Agreement between NASA and Natural History Museum, London, for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Helna Bates proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.          | 1/3/2023  | 1/3/2025   |
| 631 | Johnson Space Center (JSC)              | University of Winnipeg                                | Agreement between NASA and University of Winnipeg   | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Ed Cloutis proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.           | 1/3/2023  | 1/3/2028   |
| 632 | Johnson Space Center (JSC)              | Natural History Museum                                | Agreement between NASA and Natural History Museum, London, for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Paul Schofield proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.       | 1/3/2023  | 1/3/2028   |
| 633 | Goddard Space Flight Center (GSFC)      | Istituto di Scienze dell'Atmosfera e del Clima (ISAC) | Hydrological Cycle in Mediterranean Experiment (HyMeX)  | Project-Specific Agreement (PSA)        | Extension continues the Hydrological Cycle in Mediterranean Experiment (HyMeX): NASA will contribute ground-based precipitation measuring instruments; The Istituto Di Scienze Dell' Atmosfera Del Clima Consiglio Nazionale Delle Ricerche (ISAC) will provide sites and data.  | 1/11/2023 | 11/30/2026 |
| 634 | Jet Propulsion Laboratory (JPL)         | Italian Space Agency (ASI)                            | Implementing Arrangement between NASA and ASI for Cooperation on the Multi-angle Imager for Aerosols Mission  | Implementing Arrangement/Agreement (IA) | ASI will provide a spacecraft, launch vehicle and a portion of the ground system for the MAIA observatory.   | 1/12/2023 | 9/30/2032  |
| 635 | Headquarters (HQ)                       | Japan - Government of Japan                           | Framework Agreement between the Government of Japan and the Government of the United States for Cooperation in the Exploration and Use of Outer Space         | Umbrella/Framework Agreement (UM/FW)    | Civil Space Framework  | 1/13/2023 | 1/13/2123  |
| 636 | Armstrong Flight Research Center (AFRC) | Canadian Space Agency (CSA)                           | Reimbursable Space Act Agreement Between NASA and CSA for Airborne Science Research Using the High Altitude Aerosols Water Vapour & Clouds (HAWC) Instruments | Project-Specific Agreement (PSA)        | Under this Reimbursable Agreement, CSA will pay NASA to fly the HAWC instruments on the NASA ER-2 plane in the Fall 2023 timeframe   | 1/25/2023 | 1/25/2026  |
| 637 | Goddard Space Flight Center (GSFC)      | National Space Policy Secretariat of Japan (NSPS)     | Agreement between NASA and NSPS Concerning Cooperation in Space Geodesy for the QZSS Satellite System   | Project-Specific Agreement (PSA)        | Under this agreement, NSPS will establish GNSS station at NASA's KPGO monitoring site to contribute to the Japanese QZSS system and the Geodesy global network.  | 1/27/2023 | 3/31/2033  |
| 638 | Goddard Space Flight Center (GSFC)      | Geoscience Australia                                  | Extension to the Agreement between NASA and Geoscience Australia for Cooperation in Space Geodesy   | Project-Specific Agreement (PSA)        | Extension to the agreement extends work for 10 years to continue work in space geodetic and satellite laser ranging work   | 2/1/2023  | 7/31/2032  |
| 639 | Johnson Space Center (JSC)              | Earth-Life Science Institute (ELSI)                   | Agreement between NASA and Earth-Life Science Institute (ELSI), for the Loan of Antarctic Meteorite Samples   | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Henderson J. Cleaves proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator. | 2/2/2023  | 2/2/2028   |

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|     |                            |  |   |   |   |           |            |
|-----|----------------------------|--|---|---|---|-----------|------------|
| 640 | Johnson Space Center (JSC) | University of Bern   | Agreement between NASA and University of Bern, for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Klaus Mezger proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.    | 2/2/2023  | 2/2/2028   |
| 641 | Johnson Space Center (JSC) | Imperial College of Science Technology and Medicine (Imperial College) | Agreement between NASA and Imperial College, for the Loan of Antarctic Meteorite Samples  | Project-Specific Agreement (PSA)        | Principal Investigator Dr. Mark Rehkaemper proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator. | 2/2/2023  | 2/2/2028   |
| 642 | Johnson Space Center (JSC) | Multilateral - European Space Agency (ESA)                             | Implementing Arrangement between the European Space Agency and the National Aeronautics and Space Administration on the United States of America Concerning an Exchange of Goods and Services in Support of the International Space Station including the Offset of ESA's Responsibility for Common System Operations Costs for 2021-2024 | Implementing Arrangement/Agreement (IA) | ESA's fulfillment of its CSOC obligations from January 1, 2021 to December 31, 2024 and an additional exchange of goods and resources.  | 2/10/2023 | 12/31/2025 |
| 643 | Headquarters (HQ)          | Israel - Israel Space Agency (ISA)                                     | Implementing Arrangement Between The National Aeronautics and Space Administration (NASA) And The Israel Space Agency (ISA) For Cooperation On The Ultraviolet Transient Astronomy Satellite Mission (ULTRASAT)   | Implementing Arrangement/Agreement (IA) | ULTRASAT is an astrophysics research satellite carrying a telescope with a large field of view observing in the ultraviolet. NASA will provide a variety of launch vehicle related necessities. ISA will cover the scientific aspects of ULTRASAT.  | 2/12/2023 | 2/12/2030  |
| 644 | Johnson Space Center (JSC) | Canadian Space Agency (CSA)  | CSA-NASA CIPHER Agreement   | Implementing Arrangement/Agreement (IA) | This agreement documents the contributions from the CSA to the NASA sponsored Complement of Integrated Protocols for Human Exploration Research   | 2/14/2023 | 12/31/2030 |